CUMENE IS BUSTING OUT ALL OVER

Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

October 30, 1961

OPD SPECIAL
'DEPTH' REPORT
PAGE THREE

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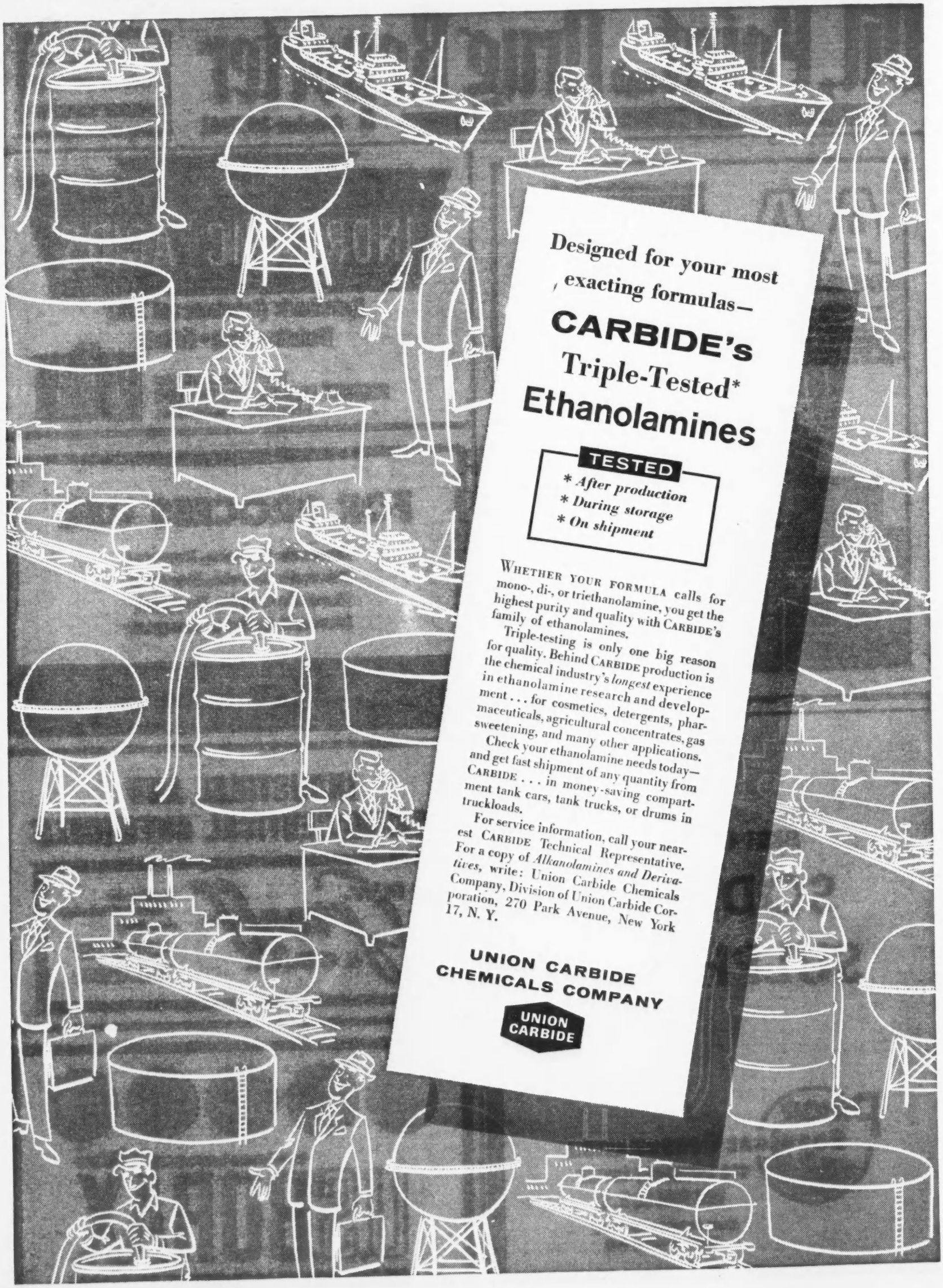
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Oil, Paint and Drug Reporter

Vol. 180 No. 18 30 Church St., New York 7, N.Y. October 30, 1961

PHENOL, ACETONE EX CUMENE
1965 Market Picture Is Full of 'Ifs'

	Phenol	Acetone
1965	*250 million lbs.	*150 million lbs.
1962	*210 million lbs.	*125 million lbs.
1961	*175 million lbs.	*95 million lbs.
1960	173 million lbs.	*87 million lbs.
1959	138 million lbs.	83 million lbs.
1958	99 million lbs.	59 million lbs.
1957	101 million lbs.	61 million lbs.
1956	94 million lbs.	56 million lbs.
1955	70 million lbs.	42 million lbs.

*Estimate

Source Tariff Commission

OPD Reports From Europe

French Petrochemicals Complex Is Now Rushing Full-Steam Ahead

The great petrochemical complex in southwestern France, which will tend to revolutionize the French chemical industry by drawing raw materials from the Lacq gas field, is rushing toward first-stage completion. Industry organizers have now christened the petrochemical development of six companies, owned in turn by most of the major French chemical concerns, Complexe Chimique de Pardies. The plants completed or nearing completion represent an estimated investment of $61 million and employ 800 workers.

THE BOSS: E. W. Rawlings, named president of General Mills, Mineapolis, Minn. He had been executive vice-president.

Ste Nationale des Petroles d'Aquitaine (SNPA), a state-controlled oil company exploiting the field, is the basic company. SNPA has become one of the world's major sulfur producers by removing sulfur from the Lacq gas which has exceptionally high amounts of suifur. SNPA production this year is at the rate of 1.2 million tons a year and sulfuric acid production is rising with it.

Company Has Many Parts

Complex Chimique de Pardies is composed of Aquitainechimie-Societe des Produits Chimiques D'Aquitaine, Azolacq-Societe des Produits Azotes, Methanolacq, Societe Acetylacq, Societe Vintlacq, and Usines de Melle.

The complex has been designed so that almost all the raw materials needed by any one of the complex, with the exception of chlorine, are produced within the complex.

The basic end-products of this first stage of the petrochemical development are: methanol, acetaldehyde, vinyl chloride monomer, nitrogen fertilizers and butanol.

Aquitainechimie is the basic raw material producer with output of acetylene and ammonia. It also supplies hydrogen needed in other processes.

At the present time Aquitainechimie has plants for daily capacity of seventy-

—Continued on page 33

Phosphate Venture Teams IMC, Husky Oil

A major step toward exploiting the nation's most extensive phosphate rock reserves has been taken by International Minerals & Chemical Corporation and Husky Oil Company. Looking toward a joint producing venture, the two firms last week signed an agreement calling for development of reserves in Idaho estimated at 50 million tons. The study program will run five years.

The IMC-Husky venture meshes with a continuing shift westward in the center of gravity of fertilizer use, says T. M. Ware, IMC's president.

The company, reportedly the world's largest independent producer of food-producing minerals, has extensive phosphate mining and processing operations in Florida.

The Idaho reserves, located at Soda Springs and owned by Husky, are said to be the largest known supply of surface mineable phosphate ore in the US.

Though the bulk of US phosphate needs are still supplied out of Florida, a Tennessee Valley Authority study shows that 58.5 percent of the nation's reserves are located in Utah and Idaho. Florida is

—Continued on page 40

Cumene's Expansion Stampede (Latest Entry: Amoco Chemicals) Raises a Question: How Come?

Cumene is busting out all over. Capacity promises to reach 720 million pounds annually here and nearly 1.1 billion pounds abroad by the end of 1962. US cumene demand next year is expected to total around 335 million pounds by comparison—somewhat under half projected year-end capacity. Why the rush, both here and abroad, into cumene? The factors are manifold, but basically there are two camps: those who integrate backward from phenol and those who want to do something with their benzene and propylene in order to move it.

OPD 'Depth' Report

There are nine US cumene producers operating and building now, and a tenth—Amoco Chemicals Corporation—promises to join the pack soon. Of the nine, only Dow Chemical Company and Phillips Petroleum Company are not in some way connected with the manufacture of phenol and acetone via cumene.

*a-Methylstyrene Capacity**

Dow, Midland, Mich.	10
Allied, Frankford, Pa.	5
California Chemical, Richmond, Cal.	4
Hercules, Gibbstown, N. J.	3
Total	22

* Millions of pounds annually.

Phillips offers cumene as a specialty chemical out of its Borger, Tex., operation. Dow calls it isopropyl benzene and makes a-methylstyrene out of it at Midland, Mich.

At face value, it looks like Amoco is getting into cumene in order to push an entirely new and as yet unfathomed product now in the development stage.

But trade sources pondering the size of the company's projected Texas City, Tex., unit—an estimated 50 million pounds annually—are skeptical, and are more inclined to theorize that Amoco is after Rohm & Haas Company to build a phenol plant in the Texas area.

Rohm & Haas is a natural for cumene-phenol production. It is one of the nation's largest single consumers of both phenol and acetone, coproducts of cumene oxidation. It consumes large amounts of acetone at its Pasadena, Tex., acrylics plant—not far from Texas City.

At the same time, it wouldn't be too difficult to ship phenol by barge to R&H's East Coast phenol derivatives plants from the Gulf Coast.

However, the impression from the Amoco move is that the cumene will be consumed internally, and not for conventional end-products; rather it will be for a material that is now in the develop-

—Continued on page 42

CUMENE OUTPUT

1965	*400.0 million lbs.
1962	*335.0 million lbs.
1961	*270.0 million lbs.
1960	*260.0 million lbs.
1959	213.6 million lbs.
1958	177.4 million lbs.
1957	169.8 million lbs.
1956	159.8 million lbs.

*Estimate

Source: Tariff Commission

USI Throws in Towel On Its Isosebacic Acid

National Distillers & Chemical Corporation is throwing in the towel on isosebacic acid. Reason: loss of the synthetic lubricants market to lower-cost adipic acid.

Though not naming Rohm & Haas Company by name, National Distillers said last week:

"In the past few weeks, much of the potential market for dibasic acids has been pre-empted by a competing product, which, through newly-developed processes, can be made at a cost advantage we cannot overcome."

Until announcing its entry into adipic (OPD, 6/26/61), Rohm & Haas was reportedly National Distillers' number one

—Continued on page 32

IN OVER-ALL SPOT: T. G. Hughes, former president of California Chemical Company's Oronite Division and president of California Chemical International Inc., appointed vice-president in charge of marketing for the parent company's operations in the United States and abroad.

Chemical Marketing Cues . . .

30 BORAX: The meaning behind the firm price guarantee for 1962.

34 OXO ALCOHOLS: Why producer ranks may become more crowded.

43 PHTHALIC: What's ahead now that PA has skidded to 15 cents?

51 MOLECULAR SIEVES: Keys to one-can epoxy coatings and adhesives.

Chemical Stake of Foreigners Now Close to $500 Million in US

Direct investments by foreigners in the manufacture of chemicals and allied products in the US are going up. A survey just completed by the Department of Commerce estimates that close to $500 million of chemical manufacturing in this country is now owned by foreign interests. Two years ago it was about $465 million. Chemicals and related products have been a major field for investments from abroad for many years and among manufacturerers groups is outranked only by the food products and beverages group.

Textiles, at one time the leader, now represents only little more than $200 million of the total foreign investments in US manufacturing.

Results of the survey just completed by the department were announced only in round and overall figures with some attempt made to detail direct investment trends.

Detailed Figures Promised in '62

The department, however, promises to supply final detailed results early next year in a supplement to its monthly publication, *Survey of Current Business.*

Preliminary results of the study show foreign business investments in the US at the beginning of this year had reached a book value of $6.9 billion, or more than double the 1950 figure of $3.4 billion. At the end of the last broad study, covering 1941, the value of these investments was $2.6 billion.

Increases in foreign direct investment here have averaged about $350 million annually since 1950, but less than half of this represents "new" money—mostly it is reinvested earnings.

The department says that many foreign manufacturing companies, principally European and a few Canadian firms with leading positions in their industries through patents, production technics or extensive experience, long ago established production facilities in the US.

A wide range of commodities has been involved, it is added, including many chemicals, artificial fibers, specialty food products, and beverages, textiles paper products and many types of machinery.

The department downgrades the im-

—*Continued on page 48*

Koppers Likes Outlook For 'Dylite' Polystyrene

Koppers Company, Pittsburgh, Pa., appears to be doing well with its "Dylite" expandable polystyrene plastic—for the company has just decided to increase its production capacity about 85 percent.

The increase is being accomplished through the addition and modification of production equipment at the company's Kobuta, Pa., plant. The facilities will be set to go on stream before the end of the year.

'Celcon' Maker Claims Major Breakthrough

Celanese Corporation of America reports "a major breakthrough" in "Celcon" resin technology which should open up new big-volume markets. While a patent infringement suit, brought by E. I. duPont de Nemours & Co. hangs fire, Celanese also announces start-up within thirty to sixty days of a multi-million pound "Celcon" plant at Bishop, Tex.

Scene of the disclosures was a new polymers laboratory dedicated by Celanese at Clark, N. J., last week.

Dr. Russell N. Clark, vice-president and technical director of Celanese Polymer Company, said a "Celcon" modification had been achieved which for the first time permits convenient handling when the resin is used for extrusion-formed shapes

This new "Celcon" is being evaluated on a semi-works scale, he said, for applications in piping and containers.

In its suit, duPont claims that "Celcon,"

—*Continued on page 48*

United Carbon Gets Nod On Carbon Black Project

United Carbon Company reportedly has won government approval in India to join with the Indian banker, C. H. Bhabha, in building a carbon black plant near Bombay to produce 30 million pounds yearly.

Cost of the plant is estimated at $2.5 million. United Carbon also is understood to have proposed building a $4.2 million plant to produce 100 tons daily of ammonia from the waste gases of the carbon black plant.

French Chemical Firms Are Having Labor Pains

French chemical companies are under fire from a battery of unions demanding significantly higher wages. Rhone-Poulenc has so far borne the brunt of the difficulties with several of its installations hit by one-day strikes.

One current demand before Rhone-Poulenc calls for a 10 percent increase in wages.

The Congress de la Federation des Produits Chimiques FO has an overall plan calling for a minimum monthly salary of about $82, a progressive change to the forty-hour week, a four-week paid vacation and a sixty-year retirement age.

This group claims to have won salary increases of 33 percent for its members over the last three years.

The Week's Price Changes

Citronella Oil, Cocoa Butter, Olive Oil, Safflower Oil Advanced. Isophthalic Acid, Palm Oil, Phthalate Plasticizers Reduced.

Prices Advanced

Citronella oil, Formosan, 10c. per lb. (p. 49).
Cocoa butter, 2c. per lb. (p. 55).
Cottonseed meal, $1.50 per ton (p. 55).
Lemongrass, oil, 50c. per lb. (p. 49).
Linseed meal, expeller, $1.50 per ton (p. 55).
Olive oil, spot, 5c per gal. (p. 55).
Peanut meal, $2 per ton (p. 55).
Safflower oil, 1½c. per lb. (p. 55).
Soybean meal, $4.50 per ton (p. 55).

Prices Reduced

Butyl cyclohexy phthalate, 1c. per lb. (p. 52).
Butyl isodecyl phthalate, 1c. per lb. (p. 52).
Butyl Octyl phthalate, 1c. per lb. (p. 52).
Dibutyl phthalate, 1¼c. per lb. (p. 52).
Dicyclohexyl phthalate, 1c. per lb. (p. 52).
Didecyl phthalate, 1c. per lb. (p. 52).
Diethyl phthalate, 1½c. per lb. (p. 52).
Di-isobutyl phthalate, 1c. per lb. (p. 52).
Di-isodecyl phthalate, 1c. per lb. (p. 52).
Di-iso-octyl phthalate, 1c. per lb. (p. 52).
Dillweed, 50c. per lb. (p. 49).
Dimethyl phthalate, 1½c. per lb. (p. 52).
Dioctyl phthalate, 1c. per lb. (p. 52).
Ditridecyl phthalate, ¾c. per lb. (p. 52).
Greases, ½c. per lb. (p. 60).
Iso-octyl isodecyl phthalate, 1c. per lb. (p. 52).
Isophthalic acid, 2½c. per lb. (p. 43).
n-Octyl n-decyl phthalate, 1c. per lb. (p. 52).
Palm oil, ½c. per lb. (p. 55).
Soybean oil, crude, ½c. per lb. (p. 55).
Refd., ½c. per lb. (p. 55).
Tallow, inedible, ½c. per lb. (p. 60).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

Oct. 27, 1961	Oct. 20, 1961	Oct. 28, 1960
113.90	113.80	109.99

Soviet Chemists May Outpace US

Soviet chemical technology will sweep past the United States by 1965, if research here and in the USSR continues to grow at its present rate. That's the upshot of a survey of chemical literature growth by Dale B. Baker, director of Chemical Abstracts Service. By 1970, Mr. Dale expects a world total of 290,000 papers reporting on new chemical research. Last year, some 132,159 papers were published—the US accounting for something over 27 percent of the total, Russia for better than 19 percent and the British Commonwealth with nearly 14 percent.

The chemical service now reports on over 160,000 chemical compounds a year. Of these, an estimated 90,000 to 100,000 are new.

The Master File of Compounds

The master file of compounds now being set up lists an estimated 1.75 million organic and 500,000 inorganic compounds, including salts and derivatives.

As the service reckons it, the total number of chemical scientific papers produced today by the USSR and such Soviet bloc countries as Bulgaria, Czechoslovakia, Hungary, Communist China, Poland, Rumania and Yugoslavia represents a combined total of 26.5 percent, just barely below the US total.

Red China, of course, is an unknown quantity. Should it choose to emphasize scientific research as the Russians do, it could become a major chemical research nation—possibly by the end of the sixties.

Armour Fertilizer Complex To Start Up in March of '62

Armour Agricultural Chemical Company has set next March as target date for production of ammonia and nitrogen products at its new fertilizer complex now under construction at Cherokee, Ala.

Ammonium phosphate production will get under way next April, the company reports.

The new Armour facilities reportedly will include the largest single train ammonia plant in the world. The complex is located on a 1,200-acre tract at Cherokee, in northwestern Alabama.

IN ENGINEERING POST: William C. Quinn, named director of engineering by Fairmont Chemical Company, Newark, N. J. He was formerly associated with Merck & Co., Rahway, N. J.

Dow Hikes Vinyl Chloride

Following the action taken by other makers, Dow Chemical Company of Midland, Mich., will raise the price of vinyl chloride monomer a half-cent per pound on November 1. The new tankcar price will be 8 cents, and Dow's action applies both to contract and spot order sales. Ethyl Corporation indicated at week's end that it, too, will raise vinyl chloride on the first.

Index to News and Market Reports

Association News

Grace Man Backs Latin Program..... 7
MCA to Meet..... 39
PMA Views S 1552..... 7
Weed Controllers to Meet..... 61

Government News

Carbide Ordered to Release Visking.... 5
Chemical Brokers Face Gov't Action... 7
Government to Sell Shellac 5
GSA Slates Tin Sale..... 40
PHS Urges Flu Immunization..... 48
Tung Import Quota Draws Fire..... 5

Industry News

ABS Plant Completed by Goodrich..... 39
Antifungal Agent Offered by McNeil.... 48
Armour Fertilizer Complex to Start Up.. 4
Baird Sets Thiourea Unit..... 5
Cabot in Titanium Pact..... 7
'Celcon' Breakthrough, Expansion Told.. 4
Chemical Stocks Are Paying Well..... 7
Chemicals Accented by Oil Refiner..... 7
Chemicals Production in August..... 9
Chlorine-Caustic Plant Contract Let.... 32
Columbian Carbon Opens New Unit..... 40
Cumene: OPD 'Depth' Report..... 3
a-Methylstyrene Capacity..... 3
a-Methystyrene Output in US..... 42
Output: 1956-1965..... 3
Phenol, Acetone Ex-Cumene Output... 3
World Requirements..... 42
Cumene Expansion Race: Why?..... 3
Dimethyl Urea Plant Due Soon; Glyco.. 5
Dow Hikes Vinyl Chloride..... 4
Fats, Oils Outlet Seen in Feeds..... 7
Housefly Sterilizer Revealed by Olin.... 7
Huber Sets Expansion..... 61
Koppers to Increase "Dylite" Output... 4
Liquefied Propylene Going into Cave.. 5
Monsanto Has Biodegradable Syndet.... 5
New Market for Enzymes Seen..... 61
Nitrogen Glut Is Over..... 5
Pharmacy Awards Program Set..... 48
Phosphate Deal Set by IMC, Husky..... 3
Piperazine Facility Set by Jefferson..... 5
Polyvinyl Chloride Conduit Offered..... 53
PPG Breaks Ground for Resins Unit.... 40
Reilly Making Isoniazid..... 48
Rohm & Haas Offers New Acrylic..... 39
S 1552 Patent Hearings Set..... 7
Simoniz to Market New Wax..... 51
Smith-Douglass Picks Agent..... 41
Sodium Chloride Report Offered..... 31
Stepan Reveals Surfactants Unit in West 33
US Peroxygen Expanding..... 61
USI Gives Up on Isosebacic Acid..... 3
Wyandotte Reports to Shareholders..... 39

International News

Bayer to Expand Fiber Capacity..... 33
Benelux Nations Attract US Projects.... 50
Chemical Stake of Foreigners Rising.... 4
DuPont Sets German Sales Unit..... 5
French Firms Have Labor Pains..... 4
French Petrochemical Complex Growing 3
Kellogg Awarded ICI Contract..... 48
Pfizer UK Battles Cheap Imports..... 48
Soviet Chemists May Outpace US..... 4
United Carbon in Carbon Black Deal.... 4

Personnel News

California Chemical Names Hughes..... 3
Chemway Appoints Hoskins..... 7
Dewey & Almy Chooses Clarke..... 7
Esso's Garvey Succeeds Saltzman..... 39
Fairmount Chemical Names Quinn..... 4
FMC Unit Appoints Johnson..... 5
General Mills Elects Rawlings..... 3
Great Lakes Carbon Names Hutchings... 5

Market Reports

Acids 30
Agricultural Chemicals 41
Aliphatic Organics 34
Aromatic Chemicals 49
Botanical Drugs, Gums..... 48
Coal Chemicals 43
Coating Materials 52
Drugs 47
Essential Oils 49
Fats & Greases 60
Fertilizer Materials 41
Fine Chemicals 47
Heavy Chemicals 30
Industrial Organic Chemicals 34
Metals, Nonferrous 30
Naval Stores 53
Oil Cake and Meal..... 60
Oils 55
Paint Materials 52
Pesticides 41
Petrochemicals 34
Petroleum Derivatives 51
Protective Coating Materials..... 52
Spices 49
Trade Name Chemicals 51
Waxes 60

General Features

Advertisers' Index 61
Association Meeting Dates..... 9
Bids Wanted..... 45
Classified Advertisements 60
Coal Chemical Output 43
Crude Oil Stocks 51
Current Market Quotations 10
Editorials 9
Imports 45
Obituaries 32
OPD 'Depth' Report: Cumene..... 3
OPD Price Index 4
OPD Reports From Europe..... 3
Washington Talks It Over..... 9

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TAKES SELLING JOB: Dr. Oscar Johnson, named marketing director of Niagara Chemical Division of FMC Corporation. The move is designed to provide greater coordination of Niagara's three-pronged marketing effort: agricultural chemicals, technical chemicals, and the Fairfield departments.

Monsanto Says It Has Biodegradable Syndet

Monsanto Chemical Company is pushing its attack on the problem of biodegradability of synthetic detergents. Present syndets based on dodecylbenzene sulfonate are running into trouble all over the world because bacteria won't eat them up in waste systems.

But, Dr. Carroll A. Hochwalt, the company's vice-president for research, development and basic engineering, reports that Monsanto's scientists have been successful in reconstructing certain complex detergent molecules so that they will be attacked and consumed by microorganisms.

Speaking at the dedication of Monsanto's new multi-million-dollar research center in suburban St. Louis, Mo., Dr. Hochwalt indicated that biodegradable detergent formulations now are under test by major producers of detergent compounds.

Implications are that, sometime in the future, the use of such compounds in common industrial, laundry and household detergents may substantially lessen the detergent content of waste-carrying streams.

This revelation was only one of many made by the St. Louis firm last week as it rounded out a busy period during which Monsanto:

- Announced development of two low-cost chemical weedkillers, "Avadex BW" and "Rogue" herbicides.
- Set up a new division—the hydrocarbons division—combining operations at Texas City, Tex., and Chocolate Bayou, Tex. Lion Oil Company will be part of the new set-up.
- Elected vice-president Robert K.

—Continued on page 61

DuPont Fiber Sales Unit Is Scheduled for Germany

DuPont de Nemours International SA, of Geneva, Switzerland, will form a new, wholly-owned German subsidiary company, DuPont Chemie GmbH for the sale of duPont textile fibers in Germany.

The new German company, with main offices in Dusseldorf, will be responsible for the sales of "Orlon" acrylic fiber, nylon, "Lycra" spandex fiber, and other synthetic fibers developed and manufactured by duPont. In addition, it will provide technical assistance, merchandising

—Continued on page 40

Tung Year Starts Wednesday With Industry Men and USDA At Loggerheads Over Imports

The tung oil industry and the Department of Agriculture are at loggerheads over what to do about regulating tung oil imports during the new marketing year starting Wednesday (November 1). Says the department: World prices of tung oil have risen to such heights by prospective lack of supplies that the import quota system, which has operated effectively since 1957 to hold down imports into this country, can now be safely terminated without endangering the domestic price support program.

Says the industry: So much uncertainty is ahead in the supply picture for the European market—because no one knows how much oil Red China may release on the world market—that the only safe course for the US is to continue the import quota program.

Out of these opposing claims and somewhat conflicting figures on prospective supplies, the Tariff Commission hopes this week to come up with recommendations on which the President can act either to continue, modify or abandon the quota system.

JFK Ordered In the Commission

The Tariff Commission took on the task of reviewing the tung oil outlook at the direction of President Kennedy last month (OPD, 9/25/61) after the Department of Agriculture raised the question whether the quota is needed any longer.

At hearings before the Tariff Commission last week, the department came out flatly for termination of the quota. It bases its reasoning on these facts:

Against an average annual production total of 34.7 million pounds, the US produced only 13 million pounds from the 1960 crop of nuts.

At the same time, Communist Chinese shipments to Western Europe, which dropped substantially in 1958-1959, declined further in 1959-60 and 1960-61, while tung oil carryovers in Argentina and Paraguay (the major Free World suppliers) declined from 28.5 to 18 million pounds.

The realization that future requirements in the Free World greatly exceeded apparent availabilities has caused European prices for South American tung oil to rise to an average of 28 cents a pound since January 1, 1961.

In all probability, the department says, prices in Europe will continue strong as recent reports received by USDA indicate that the Chinese production of tung oil in 1961 may be 10 to 15 percent below that of last year.

Tung oil production from this year's crop of nuts is estimated at 30 million pounds by the department on the basis of trade reports.

With a continuing strong demand in

—Continued on page 40

Dimethylol Urea Debut Slated by Glyco Chemicals

Within a week or two, Glyco Chemicals Division of Chas. L. Huisking & Co. will become a producer of dimethylol urea (DMU). In a project undisclosed until now, the company is in the final stages of testing a new DMU plant at its Williamsport, Pa., location.

DMU, now produced only by E. I. duPont de Nemours & Co., Wilmington, Del., is an important constituent of dry adhesives and binders. In designing its new facility, Glyco says it has allowed for a high rate of market growth in these areas, but the plant's actual capacity is undisclosed.

Chemical specialties currently produced by Glyco at Williamsport include sorbitan fatty acid esters and ethylene oxide derivatives of these esters. Sorbitol for this operation is supplied by Merck & Co. from its plant at nearby Danville, Pa.

RESEARCHER: Dr. LeRoi E. Hutchings, named associate director of research for Great Lakes Carbon Corporation, New York. His homebase will be the research center at Morton Grove, Ill.

Piperazine Facility: Big Step for Jefferson

A new unit for the manufacture of piperazine will be erected by Jefferson Chemical Company at its Conroe, Tex., plant, marking a major step in the company's plans for expansion at Conroe in the field of specialty chemicals.

The new unit, which will appreciably increase Jefferson's production of piperazine, will be completed during the second quarter of 1962.

Jefferson says it is the leading producer of piperazine, an ethylene oxide derived chemical used as an anthelmintic, and proved effective in the deworming of swine and poultry. It is also used as a starting material for drug products including antihistamines, antimalarials and tranquilizers, and as an intermediate for industrial products such as surface-active agents, polyurethanes, rubber chemicals and synthetic fibers.

Currently, piperazine is being produced in a semi-commercial unit at the Austin laboratories of Jefferson Chemical. The Conroe installation will free these facili-

—Continued on page 39

Gov't Now Ready to Sell 10.6 Million Lbs. of Shellac

A sizable inventory of shellac—some 10.6 million pounds—that has been stored in the national stockpile for a number of years is to be disposed of by General Services Administration on the ground that the shellac is obsolete and excess to the needs of national defense.

The amount to be offered does not represent the entire quantity in the national stockpile.

Announcing intentions to break out the 10.6 million pounds from the defense inventory last week, GSA says that sales

—Continued on page 31

N Glut Is Over; Lots More Output Now Seen Needed

For US nitrogen producers, the days of over-capacity are over, and now substantial new capacity must be built during the 1960's to avert a potentially serious shortage. Says John R. Riley, president of Southern Nitrogen Company:

Even the 800,000 tons of new nitrogen capacity now being built will prove inadequate to meet the market requirements projected for 1965.

According to studies cited by Mr. Riley, consumption in '65 will hit 4.75 million tons, requiring a minimum capacity of 5.3 million.

Current capacity is 4 million tons, meaning that in 1964, when the full impact of current projects should be felt, total US potential will stand at only 4.8 million tons.

Military Use Seen Big Factor

Further, he notes, the '65 projection omits expanded military consumption which will probably be a big factor in the market by that time.

Looking further ahead, the Southern Nitrogen president sees US nitrogen consumption hitting 6.75 million tons by 1975.

In a talk before the Financial Analysts of Philadelphia last week, Mr. Riley reported that Southern Nitrogen's $5 million expansion program should be completed by next June, giving the company a total ammonia processing capacity of 180,000 tons a year.

This capacity, he says, will make Southern Nitrogen "the third largest ammonia processor east of the Mississippi River and the ninth largest in the US."

In the South Atlantic states, the company's principal marketing area, he notes, consumption of nitrogen was 460,000 tons in 1960—or over four times Southern Nitrogen's capacity before the current expansion.

Reviewing the recent trend in industry capacity versus consumption, Mr. Riley points out that by 1957 demand had started to catch up with supply, and certain sections of the country actually experienced shortages during the spring season.

"In 1958," he adds, "this reversal of position continued and prices were actually increased. This trend continued in 1959, 1960 and 1961, resulting in increased prices in all of these years."

The earlier over-supply was caused by

—Continued on page 49

Baird Sets Thiourea Plant; To Be the Sole US Maker

Baird Chemical Industries will become the only US producer of thioureau. The New York-based company has announced plans to put up a thiourea facility adjacent to its sorbitol operation at Peoria, Ill.

Capacity is undisclosed, but Baird says it will suffice to supply a US domestic market estimated at "between 4 million and 20 million pounds a year."

For many years Baird has been a major importer and marketer of thioureau. In the absence of domestic output, Baird says, "American consumers have been plagued with uncertain supply, fluctuating prices and quality variations." Baird feels its production will stabilize these factors.

Liquefied Propylene Going Into a Cave

Liquefied propylene is going underground—into a granite cavern which Sun Oil Company is constructing at Marcus Hook, Pa.

The cave is reportedly the first of its kind for liquid propylene in the world. Scheduled for completion by mid-1962, it will have a capacity of 75,000 barrels and will cost about $500,000. A companion project also is in progress—consisting of tankage, pumps and pipelines—and will also cost $500,000.

When the cavern is completed it will have a maze of tunnels or drifts, up to forty feet high, excavated out of a solid bed of granite.

Carbide Must Get Rid of Visking PE Film Operation

Union Carbide Corporation, New York, faces problems almost as transparent as the product it produces in trying to retain its position as the foremost manufacturer of polyethylene film in the country.

Federal Trade Commission, with one member dissenting, last week gave a big boost to other producers striving for the top position in the industry when it ruled that Carbide violated the anti-merger law five years ago when it acquired Visking Corporation, Chicago, then the largest manufacturer in this field.

The commission ordered Carbide to divest itself of all assets acquired and since added that may be necessary to restore Visking to its former competitive position as an independent manufacturer of polyethylene film.

The divesting order deviated from the order proposed in February by the trial examiner in two respects: Carbide may keep a polyethylene plant built recently at Cartersville, Ga., and it may also retain all the Visking assets pertaining to production of synthetic sausage casings.

The retention of the Cartersville plant will enable Carbide to remain in the business of manufacturing these films instead of again becoming solely a supplier of the raw material—polyethylene resins.

Carbide also has a plant in Wayne, N.J., which is now being equipped by Carbide's newly-formed polymer products department to produce slot-cast and bioriented polypropylene film starting in the middle of next year.

Another fact is that Carbide's building

—Continued on page 61

COMMERCIAL SOLVENTS CORPORATION

NITROPARAFFINS DEPARTMENT

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IN CANADA: The McArthur Chemical Co., Ltd., Montreal • IN MEXICO: Comsolmex, S.A., Mexico 7, D.F.

SUBJECT:	2-Nitropropane	DESCRIPTION:	Solvent for vinyl and epoxy coatings	ACTION DESIRED:	Consider 2-NP to achieve higher quality at lower cost

General

2-NP ($CH_3CHNO_2CH_3$) is a member of the extraordinarily versatile CSC Nitroparaffin family. Its most outstanding characteristic is its unique solvent property which permits the use of larger proportions of low cost alcohols and aromatics in solubilizing a wide variety of coating materials, dyes, organic chemicals, fats, and oils. This unique property is of special interest in the formulation of vinyl and epoxy coatings.

Solvent for Vinyls

With the introduction of 2-NP—for the first time—formulators of vinyl chloride-acetate copolymers were able to obtain coatings with 1) lower viscosity and/or higher solids, 2) medium evaporation rate with better flow, 3) improved solvent release resulting in reduced drying time, and 4) mild odor. In addition to these advantages, the ability of nitrated solvents to displace water results in coatings with better adhesion to hydrophilic surfaces and better weathering properties due to improved dispersion. 2-NP's high flash point and low volatility provide added safety factors.

Research and field experience in the packaging industry have shown that the high solids content of 2-NP-formulated vinyls offers important advantages in the high-speed coating of food and beverage containers. 2-NP also proves useful in vinyl ink applications since it does not attack gelatin or most rubber rolls but still provides outstanding adhesion or "bite" to many plastics.

Low Viscosity and/or High Solids Content

2-NP can be formulated to give vinyl solutions of higher solids content and/or lower viscosity than any other medium evaporating solvent. In addition, 2-NP solutions have good stability and show no tendency to gel.

Reduced Cost

In VYHH* solutions, to obtain comparable solids and viscosities, a 50-50 mixture of MIBK-toluol can be replaced by a 30-70 mixture of 2-NP-toluol. This makes it possible for a vinyl formulator to save over $600 in raw material costs for each tank car of MIBK he now uses.

Solvent for Epoxies

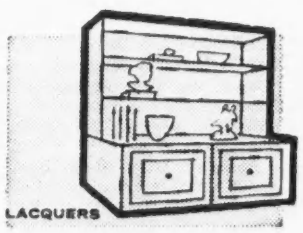
Solvent mixtures based on 2-NP have been found to be superior to other solvent systems for epoxy coatings cured at room temperature. Improvments brought about by the use of 2-NP include much greater chemical resistance, marked reduction in pinholing and water vapor permeability, minimized crawling and cratering, and improved adhesion.

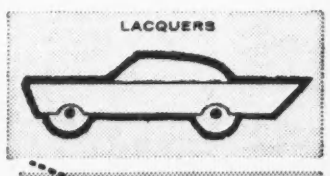
2-NP is compatible with amine catalyzed systems (with the exception of ethylene diamine) and systems employing urea-formaldehyde, polyamides, or phenolic cross linking agents.

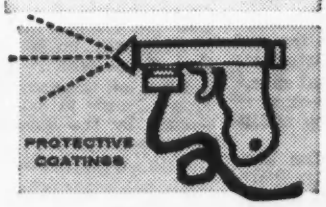
The ability of nitrated solvents to wet pigments and hydrophilic surfaces, as previously mentioned in the section entitled *Solvents for Vinyls,* also applies to epoxies as well as other vehicles used by the coating industry.

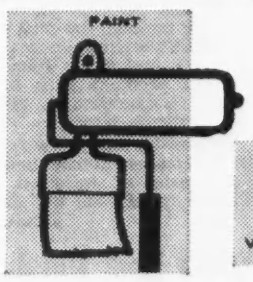
Want more information on 2-NP for Vinyls and Epoxies?

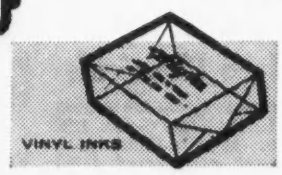
If you would like to have test samples and complete technical data on 2-Nitropropane for your vinyl and epoxy formulations, fill in and mail the coupon below.











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_____ Please have your technical representative get in touch with me.

*Name*_____

*Title*_____

*Company*_____

*Address*_____

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2-NITROPROPANE

S 1552: As PMA Pictures It

IMPROVED DESIGN

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Chemical Marketer, What Now? Latest Robinson-Patman Problems Concern Brokerage Operations

Chemical marketers, already beset by many restrictions placed on industry pricing practices by far-reaching interpretations of the anti-discrimination clauses of the Robinson-Patman act, have just been handed a couple more problems to think about: Can the Federal Trade Commission enforce the law against illegal brokerage allowances with sweeping orders going beyond the particular offenses involved in the area of a complaint? Do courts have the right on their own motion to limit the "relief" proposed by the commission when no complaint has been registered against the scope of a cease-and-desist order?

These two questions, touching directly on the daily operations of the chemical brokerage business, are soon to be argued before the Supreme Court of the United States.

They are being brought before the court for settlement by the Justice Department in a case growing out of the food brokerage business.

Because of the importance of the court's answers to administration of the Robinson-Patman act by the FTC, the Supreme Court last week allotted counsel in the case two hours in which to present arguments on the legal issues involved.

Facts of the Case

These are the facts of the case: Henry Broch & Co., while acting as a broker for Canada Foods, Ltd., on sales made to J. M. Smucker Company, was held by the FTC to be in violation of the Clayton act.

The commission objected to the granting of allowances in lieu of brokerage to Smucker when the latter agreed to place a large order for apple concentrate from Canada Foods if it was priced below that paid by other buyers of the concentrate.

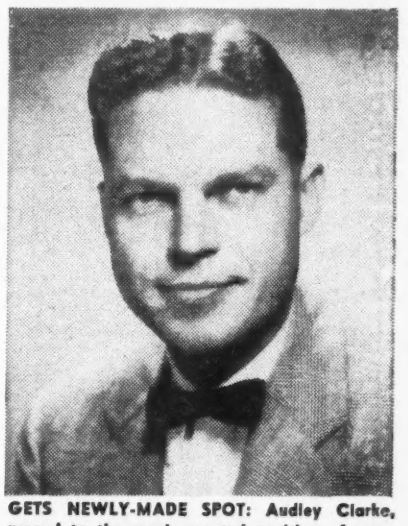
The price of the apple concentrate to all Canada Food's customers was $1.30 a gallon, on which Broch received a commission of 5 percent. But on sales to Smucker, the price was $1.25 a gallon, on which Broch received only a 3 percent fee.

The commission held this to be a violation of the brokerage allowance provisions of the Robinson-Patman act and issued a cease-and-desist order directing Broch, in connection with the sale of food products for Canada Foods "or any other seller or principle," to stop paying or allowing to Smucker "or to any other buyer" any allowance or discount in lieu of brokerage.

The FTC order was appealed to the courts by Broch on the broad grounds that the commission had erred in holding that an unlawful brokerage allowance had occurred. The broker made no issue of the fact that the order went beyond the transactions with Smucker.

The lower court, however, narrowed the scope of the cease-and-desist order to transactions solely between Broch and

—Continued on page 39



GETS NEWLY-MADE SPOT: Audley Clarke, named to the newly-created position of manager of market development in the container and chemical specialties division of Dewey & Almy Chemical Division of W. R. Grace & Co., Cambridge, Mass.

Fats and Oils Need a New Outlet, And May Have It in Animal Feeds

The fats and oils industry is looking to animal feeds as a new outlet for its production—especially as a substitute for the old soap outlet that is rapidly disappearing because of the increasing invasion of the synthetic detergents. And, says the Department of Agriculture, the fats and oils people are probably looking in the right direction. "Use of fats in mixed feeds could increase to 1.4 billion pounds a year in the next decade," reports USDA. At present the use runs to about 0.5 billion pounds a year.

TAKES OVER NEW UNIT: Dr. Walter H. Hoskins, named director of the new department of scientific affairs of Chemway Corporation, Wayne, N. J.

Feed makers are telling USDA that there will be more fats used in feeds for a number of very good reasons. Here are some of them:

The Feed Makers' Reasons

- Fat is a good source of concentrated energy.
- It increases feed efficiency, reduces dustiness and makes feed easier to handle.
- It also increases palatibility, reduces wear on handling, mixing and other machinery, aids in homogenizing and stabilizing the mixture of fine-particled feed additives.
- Furthermore, it supplies an added growth factor, and gives feed a better appearance.

Poultry feeds use more fat than any other type of feed because they contain the largest percentages of added fat and they account for over one-half of all mixed feeds commercially produced. Adding fat, from ½ to 2 percent, into all types of livestock feeds, is now practiced by some feed mixers. Also, fat addition to feed ingredients, namely alfalfa meal and cottonseed meal, in amounts ranging from ½ to 3 percent, is becoming more widespread, reports USDA.

The estimate of a future annual use of 1.4 billion pounds of fats and oils in feeds is based on several trends: expanding production of livestock and poultry; expand-

—Continued on page 33

Chemicals Get Accent From an Oil Refiner

Non-petroleum diversification, with an accent on chemicals, figures prominently in Atlantic Refining Company's planning as it prepares for what are expected to be "five or ten years of gradual growth and intense competition" in the oil industry.

Atlantic itself is confident it can score something better than "gradual growth." President Henderson Supplee, jr., last week estimated that Atlantic's domestic crude oil production would grow 5 percent and domestic gas production 7 percent.

In a talk before the New York Society of Security Analysts, Mr. Supplee indicated an even steeper rate of growth for the company's chemical sales, stating that chemicals would comprise an increasingly larger share of total sales volume. He tabbed current chemical volume at $30 million a year.

Four recently-announced projects are

—Continued on page 44

Chemical Stocks Give A Good Performance

Chemical company stock continues to be a good paying proposition to stockholders. Figures released last week by the Office of Business Economics of the Department of Commerce show that cash dividend payments by chemical companies in the first nine months of this year exceeded those of the corresponding period last year by nearly $12 million.

Total disbursements through September

—Continued on page 50

Cabot in Titanium Pact

Cabot Corporation, Boston, Mass., has entered into an agreement with Fabrique de Produits de Thann et de Mulhouse (FPC) under which Cabot will enjoy the exclusive rights in the United States to FPC patents and know-how relating to the production of pigment-grade titanium dioxide through the flame chloride process.

Grace Executive Supports JFK 'Alliance for Progress'

A call for vigorous US leadership to ensure the future of Latin America and the future of the US in Latin America has been sounded by a spokesman for the chemical industry.

Addressing the Chemical Industry Association in New York last week, John D. J. Moore, vice-president of W. R. Grace & Co., noted that as a result of the momentum established by the Inter-American Conference in Punta del Este, hopes for self-improvement are now running high among Latin Americans.

Should disillusionment set in through lack of real accomplishment, he cautioned, a reaction might follow "that could be extremely severe."

Turning to Cuba, Mr. Moore feels that Latin American confidence in private en-

—Continued on page 61

S 1552 Patent Hearings: Tomorrow Is Round No. 2

The second round of hearings by the Kefauver committee on the patent provisions of S 1552 features as witnesses two professors of economics, three persons versed in medical matters and two patent lawyers, including the return of Robert B. Larson, president of the American Patent Law Association, for questioning.

The hearings, starting tomorrow (October 31), will run for three days and then recess until December when they resume on the sixth, seventh and eighth to hear witnesses arranged by the Pharmaceutical Manufacturers Association. The witness list for the hearings this week includes the following:

- Tuesday—Prof. Fritz Machlup, pro-

—Continued on page 40

Houseflies, Watch Out! Olin's Going to Sterilize You

A chemical product that can sterilize the common housefly, and thus eliminate all the succeeding generations of the pest, has been turned out by Olin Mathieson Chemical Corporation, New York.

The company says its product is scientifically feasible. Now all that remains is to get it into production and distribution.

Target date for commercial introduction is 1964, with the market value estimated at more than $10 million a year.

Chemically, the fly-killer is hexakis (1-aziridinyl) phosphonitrile. Its tradename is "Apholate."

Research on the material was initiated by the Department of Agriculture because, in recent years, many strains of flies have developed an immunity to conventional pesticides. But the new "Apholate" will sterilize them if they eat it, or even walk over it.

Entomologists at Olin's new research laboratory, which was formally opened last week, are now cooperating with the government on a program of further research to achieve maximum effectiveness and safety.

The new research facility, in which plant experiments are conducted in a controlled artificial environment, without natural sunlight, is devoted to combating plant diseases, producing healthier crops and controlling pests which harm vegetation. It is adjacent to The Squibb Institute for Medical Research.

There are, at present, no individual facilities or plant set aside for the production of "Apholate"; it is strictly a laboratory product. The best guess on the future is that the product will be made in currently-operating Olin installations.

—Continued on page 33

Meeting Dates
May Be Found
On Page 9

Petro-Tex C_4 Hydrocarbons

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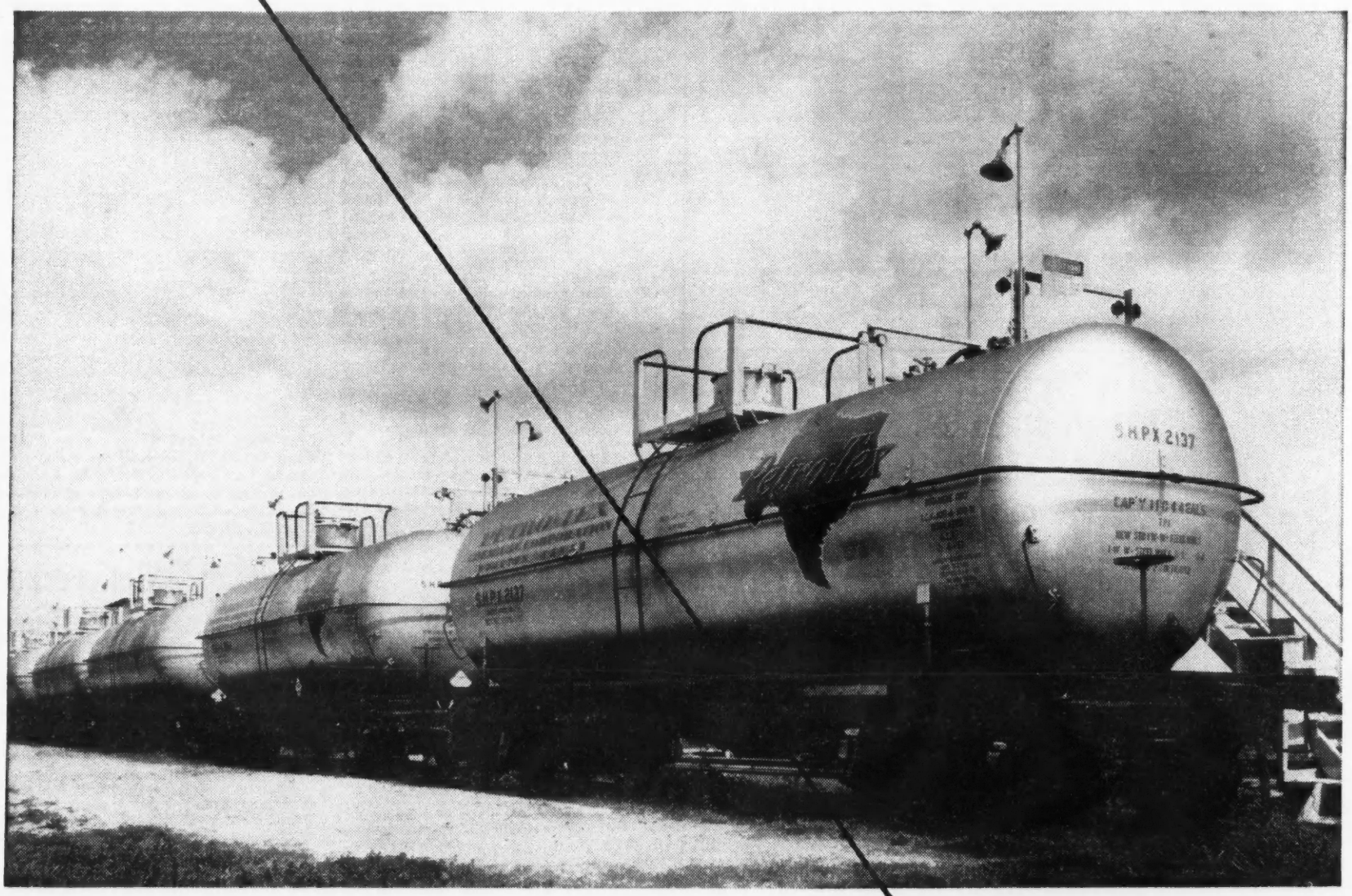

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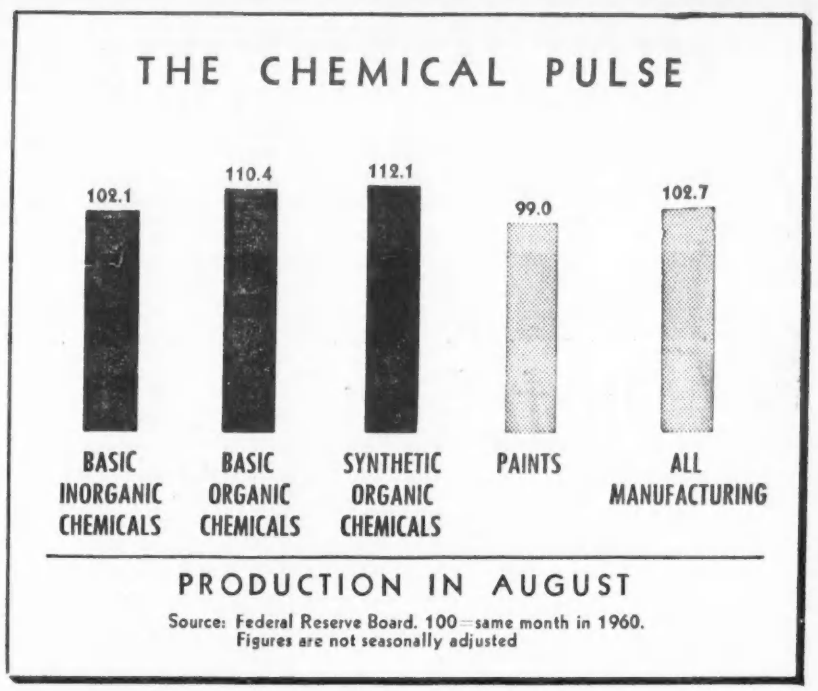

Advice for FDA

Every word of what the Secretary of Health, Education & Welfare had to say at the bottom of the second column on page 37 last week about this country's needs in protection for consumers of foods, drugs and cosmetics should be, must be studiously and seriously considered by every member of the drug industry, trade and profession, for what he is talking about can, and will mean, very, very much in those areas of consumer services.

The drug folks must also get the full significance of what the secretary had to say about what lies ahead to be done in the direction of endeavoring to meet those needs satisfactorily under the advice and recommendations of the new Citizens' Advisory Committee. The representative of the drug group on that committee has full qualifications and capability for participating understandingly. But, he and the representative of the cosmetic group are but two of the committee's sixteen members. The food industry has two, plus one from the restaurant industry. Education has the broadest representation—all at the higher levels—in home economics, social and political science, agriculture, medicine and public health—for the most part.

Capable as he is, the representative of the drug group can be, must be expected to face a tremendous task in getting from that assemblage the recognition that is deserved by his group for its actual role—and achievements—in the service of the health needs of the general public.

All those who have anything to do with the drug service of public needs must maintain such contactual activities with their representative on the advisory committee as will enable them—and him—to know exactly what is what in whatever the committee may advise. It will be most desirable and necessary to guard against any such muffing or whatever it was as was responsible for the faultiness of the Delaney anti-cancer clause, commented upon in the "Chemicals in Food" article on page 4 last week. Hindsight is not at all satisfactory in dealing with any such matters.

Mother Nature's Drug

The medicine man of primitive peoples is getting a new role in the drug field. According to a recent bulletin of the Pharmaceutical Manufacturers Association, World Life Research Institute, "a scientific non-profit corporation primarily devoted to the investigation of crude drug products derived from primitive ethnic groups or from marine products," is launching a new exploratory undertaking covering less-advanced sectors of the earth, under which crude drugs found in those parts will be passed on to a sponsoring pharmaceutical company for practical consideration. Data will be provided on the identification of the plant or other source and on how the drug has been or is being used for what among the people where it was found. That source will be identified, and the drug's availability will at least be estimated. The sponsor will also be given all commercial rights that the drug may present.

Information on sponsorial participation may be obtained by communicating with the director (a medical doctor) of the institute, 22022 Center Street, Reche Canyon, Colton, Calif.

No doubt there are in the libraries of many pharmaceutical companies copies of some of the more or less ancient thesauri of medicinal botanical information. Digging into them and experimenting thus and so and elsewise with some of the reintroduced drugs could be a very interesting pastime or hobby for those so minded. It might even revive the interest many once had in exploring afoot about the countryside in search for plants that grandmother used to hang up on the kitchen rafters to dry for the making of teas she held to be specific in some ailment or other. Commercial rights or potentialities would have nothing to do with the case.

Government-Run Business

When one has read the item on page 7 last week about the Federal Trade Commission ruling on pricing and tried to figure out what Food & Drug Administration really is aiming at with respect to hazardous labeling (after reading what Washington said on page 32), he is just about ready to think that somebody merely dreamed up what is said on page 5 about the dumping of US chemicals in the European common market. He can't see how it would be possible to get away with such price differing when the far less capacious one was blocked by an FTC ruling.

But, that is the way it is with government's attempts to run—some spell it r-u-i-n—the business of private enterprise, while piling up a deficit of almost seven billion dollars in its own (?) "business"—such as the lending of more than ten million a year by six agencies to help poultry raisers increase their production of eggs while a seventh agency was spending about one-third as much in "taking care of" surplus eggs.

What can private enterprise do about being run by government? Well, it can turn down offers of subsidies and all other favoritisms; it can get back to the old idea that its business is its own affair, and run it that way, with the same regard as of old for the actual motive power of business—the customer.

Meetings

American Oil Chemists' Society, fall meeting, Pick - Congress hotel, Chicago, October 30-November 1.

American Petroleum Institute, annual meeting, Palmer House and Conrad Hilton and Congress hotels, Chicago, November 13-15.

Association of American Soap & Glycerine Producers, annual convention, Waldorf-Astoria hotel, New York, January 24-26.

Association of Official Agricultural Chemists, annual meeting, Shoreham hotel, Washington, D. C., October 30-November 1.

Canadian Manufacturers of Chemical Specialties Association, annual meeting and conference, Royal York hotel, Toronto, Ont., October 30-November 1.

Chemical Bureau Alumni Association, fall get-together, Washington hotel, Washington, D. C., November 9.

Chemical Industries Exposition, Coliseum, New York, November 27-December 1.

Chemical Market Research Association, Mark Hopkins hotel, San Francisco, November 28-December 1.

Chemical Specialties Manufacturers Association, annual meeting, Roosevelt hotel, New York, December 4-6.

Drug, Chemical & Allied Trades Committee of Young Men's Board of Trade, annual luncheon, Commodore hotel, New York, October 31.

Federation of Societies for Paint Technology, annual meeting, Shoreham and Sheraton - Park hotels, Washington, D. C., November 2-4.

Manufacturing Chemists' Association, semi-annual meeting and midyear conference, Commodore hotel, New York, November 21.

National Agricultural Chemicals Association, annual meeting, the Homestead, Hot Springs, Va., October, 29-November 1.

National Paint, Varnish & Lacquer Association, annual meeting, Statler-Hilton hotel, Washington, D. C., October 30-November 1.

Pharmaceutical Manufacturers Association, eastern regional meeting, Waldorf-Astoria hotel, New York, December 11-12.

Salesmen's Association of the American Chemical Industry, Christmas party, Waldorf-Astoria hotel, New York, December 13.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, New York, November 14.

Toilet Goods Association, scientific section meeting, Waldorf-Astoria hotel, New York, November 29.

Washington Talks It Over

Packagers of Chemicals and Everything Else Might as Well Be on the Alert—It Looks as Though Another Congressional Investigation Will Be Coming From the Kefauver Corner.

By Ralph L. Cherry
Washington Editor

Congress' next big push in behalf of the consumers may come in the area of industry marketing practices, with a primary aim of eliminating deceptive packages from the shelves of retail stores—and that includes packages for chemical specialties, drugs, cosmetics and other products of the chemical industry.

Whether there will be legislation on the subject depends in large part on how much corrective action is undertaken voluntarily by producers in the immediate future.

For some years, there has been a developing demand from consumer organizations for more consumer protection. The organizations want the government to move in on practices in the field of marketing which seem to be just within the law.

This year it has blossomed out into a full-blown congressional investigation of packaging practices by a unit of the Kefauver antitrust committee of the senate.

Hearings held by the committee last June, again last week and more scheduled for later this year are an effort to determine the scope of the problem of slack-filled containers and whether anything can be done to improve conditions voluntarily.

Sen. Estes Kefauver of Tennessee isn't running this investigation—he assigned the job to Sen. Philip A. Hart of Michigan when Mr. Kefauver became too occupied with the drug industry investigation—but he sounded a note of warning to the packaging people a fortnight ago either to clean house or look for congressional action.

He said the inquiry goes deeper than consumer disillusionment and help for the law-abiding and fair manufacturer who wants to remain that way and still stay in business.

"We are also concerned with the economics involved," he declared. "What happens in a free competitive system when guile is rewarded instead of honesty and forthrightness?

"It is important that integrity triumph in this conflict and if it takes a nudge from congress to do this, then we will not shirk our responsibility.

"When unethical practices become good business, we are in trouble."

CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, October 27 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low many be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, cns. ..... lb. 1.90 - 2.40
Acacia (see Arabic gum).
Acetaldehyde, 99%, dms., c.l., frt. alld lb. .12 - —
dms., l.c.l., frt. alld ..... lb. .13½- —
tanks, frt. alld ..... lb. .10 - —
Acetaldehyde prices 1c. higher in West.
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt. alld lb. .32½- —
bbls., bgs., ton lots, frt. alld. lb. .33½- —
bbls., bgs., smaller lots, frt. alld lb. .36½- —
USP, bbls., 225-lb. dms., any quantity lb. .90 - —
100-lb. dms., any quantity lb. .92 - —
Acetic acid, coml., or redist., 28%, bbls 100 lbs. 4.80 - —
56%, bbls. ..... 100 lbs. 8.25 - —
70%, bbls. ..... 100 lbs. 9.95 - —
80%, bbls. ..... 100 lbs. 10.45 - —
glacial, syn., CP, dms., c.l., divd. E 100 lbs. 18.75 - —
tech., dms., c.l., divd. E. 100 lbs. 13.75 - —
dms., l.c.l., divd. E... 100 lbs. 15.25 - —
tanks, divd. E ..... 100 lbs. 10.00 - —
USP, tanks, divd. E.... 100 lbs. 13.00 - —
Acetic anhydride, aluminum ret. dms., c.l., divd. E lb. .16½- —
aluminum ret. dms., l.c.l., divd. E, lb. .18 - —
tanks, divd. E ..... lb. .14 - —
Acetic anhydride prices 1c. higher in West.
Acetoacetanilide, fib. dms., c.l., divd. lb. .70 - —
fib. dms., l.c.l., divd ..... lb .71½- —
Acetoacet-o-chloroanilide, fib. dms., c.l., divd. lb. 1.25 - —
fib. dms., l.c.l., divd ..... lb. 1.26 - —
Acetoacet-o-toluidide, fib. dms., c.l., divd. lb. .73 - —
fib. dms., l.c.l., divd ..... lb. .74½- —
Acetone, CP, dms., c.l., divd. lb. .09½- —
dms., l.c.l., divd ..... lb. .11 - —
tanks, divd. ..... lb. .07 - —
Acetonitrile, dms., c.l., frt. alld. lb. .37½- —
dms., l.c.l., frt. alld ..... lb. .39 - —
tanks, frt. alld ..... lb. .35 - —
Acetophenetidin, USP, powd., 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb. dms., 1,000 lbs., frt. alld. lb. 1.22 - —
Acetophenone, cns., dms ..... lb. .42 - 1.30
Tech., dms., c.l., works ..... lb. .32½- —
dms., l.c.l., works ..... lb. .34 - —
tanks, works ..... lb. .30 - —
N-Acetyl-p-aminophenol, dms., t.l. (min. 23,000 lbs.), frt. adjusted lb. 1.30 - —
dms., 1,000-lb. lots, same basis lb. 1.40 - —
dms., 100-lb. lots, same basis.... lb. 1.54 - —
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 - —
cs., l.c.l., ex whse ..... lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 - —
Acetylsalicylic acid, USP, cryst. (20, 40 mesh), powd. (80 mesh), 250-lb. dms., c.l., pt. of shipt lb. .56¼- —
USP, 10% starch granulation, 12-50 mesh, white, 250-lb. dms., c.l., same basis lb. .56¼- —
(Pink and green granulations 5c. per lb. higher.)
Freight equald, shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36¼- —
tanks, frt. alld. E. of Denver. lb. .33 - —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver.. lb. .37 - —

ACIDS
Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. ..... lb. .50 - .55
Acrolein, tech., dms., c.l., works lb. .36 - —
dms., l.c.l., works ..... lb. .36¾ - —
tanks, works ..... lb. .31 - —
Acrylamide, dms., t.l., f.o.b. works. lb. .58 - —
dms., l.t.l., same basis..... lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., divd lb. .42½- —
dms., l.c.l., l.t.l., divd ..... lb. .43½- —
tanks, divd. ..... lb. .40 - —
tech., esterification, tanks, frt. alld. lb. .38 - —
tech., polymerization, tanks, same basis lb. .38 - —

Abies Siberica Oil—Ammonium Biborate

Acrylonitrile, dms., c.l., t.l., works lb. .17½- —
dms., l.c.l., l.t.l., same basis .... lb. .18½- —
tanks, same basis ..... lb. .14½- —
Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., divd..... lb. .29 - —
bgs., l.c.l., divd. ..... lb. .31¾- —
Agar, USP, Kobe No. 1, strip, bls. lb. 2.60 - 2.80
powd., 30 mesh., fib. dms lb. 2.40 - 2.60
dl-Alanine, dms., 100-lbs. or more, f.o.b. works lb. 5.25 - —
dms., 1-99 lbs., same basis... lb. 10.00 - —
Aldol, 95%, dms., l.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd lb. .99 - —
fib. dms., l.c.l., dlvd..... lb. 1.04 - —

ALCOHOLS
Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs..... lb. 1.50 - 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies lb. 2.45 - —
Alkali blue prices 1c. higher W. of Rockies.
Allethrin, 90%, dms., frt. alld lb. 28.80 - 28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld lb. 6.50 - 6.55
2½% dms. frt. alld..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. divd..... lb. .32½- —
dms., t.c.l., divd..... lb. .34 - —
tanks, divd. ..... lb. .30 - —
Allyl bromide 55-lb. cbys. 5,005 lbs. or more, works lb. 1.50 - —
55-lb. cbys., 1,045 to 4,950 lbs., works lb. 1.55 - —
55-lb. cbys., 55 to 990 lbs. works. lb. 1.60 - —
Allyl chloride, dms., c.l., divd.... lb. .17½- —
dms., l.c.l., divd..... lb. .19 - —
tanks, divd. ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).

Abbreviations
Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz.	ounce
		E.	east	p-	para
		e.p.	end point	Pac.	Pacific
a.p.a.	available phosphoric acid	equald.	equalized	pf.	proof
		exp.	expressed	phos.	phosphate
approx.	approximately	Ext.	external	photo.	photographic
artif.	artificial	F.	fahrenheit	pkgs.	packages
ASTM	American Society for Testing Materials	ferment.	fermentation	powd.	powdered
		f.f.a.	free fatty acid	precip.	precipitated
		f.f.c.	free from chlorine	prod.	producer
Atl.	Atlantic	fib.	fiber	pt.	point
Be.	Baume	f.o.b.	free on board	pulv.	pulverized
bbls.	barrels	f.p.a.	free of prussic acid	purif.	purified
bgs.	bags	frt.	freight	redist.	redistilled
bls.	bales	gal.	gallon	refd.	refined
bots.	bottles	gran.	granular	refy.	refinery
b.p.	boiling point	grd.	ground	reg.	regular
b.p.l.	bone phosphate of lime	i.&a.	iron and aluminum	resub.	resublimed
				ret.	returnable
b.r.	boiling range	i.b.p.	initial boiling point	SD	specially denatured
bxs.	boxes	imp.	imported		
C.	centigrade	incl.	included	s.d.	single distilled
cbys.	carboys	indust.	industrial	S E.	southeast
CD	completely denatured	kgs.	kegs	sec.	secondary
		l-	laevo	secs.	seconds
c.i.f.	cost, insurance, freight	lacq.	lacquer	s.g.	specific gravity
		lb.	pound	shipt.	shipment
cks.	casks	l.c.l.	less carlots	soln.	solution
c.l.	carlots	l.t.l.	less truckload	s.u.	standard unit
cns.	cans	liq.	liquid	syn.	synthetic
coml.	commercial	mfrs.	manufacturers	tanks.	railroad tankcars
conc.	concentrated	m-	meta	tech.	technical
CP	chemically pure	m.a.p.	mixed aniline point	tert-	tertiary
cps.	centipoises			t.l.	truckloads
cryst.	crystalline	min.	minimum	t.w.	tankwagons
cs.	cases	m.p.	melting point	USP	U. S. Pharmacopoeia
ctns.	cartons	N-	nitrogen		
cyls.	cylinders	n-	normal	vis.	viscosity
d-	dextro	nat.	natural	VM&P	varnish makers & painters
dbl.	double	neut.	neutral		
denat.	denatured	NF	National Formulary	W.	west
dest-dist.	destructively—distilled	NNR	New and Nonofficial Remedies	whse.	warehouse
				w.w.	water-white
dl-	dextro-laevo				
dist.	distilled				

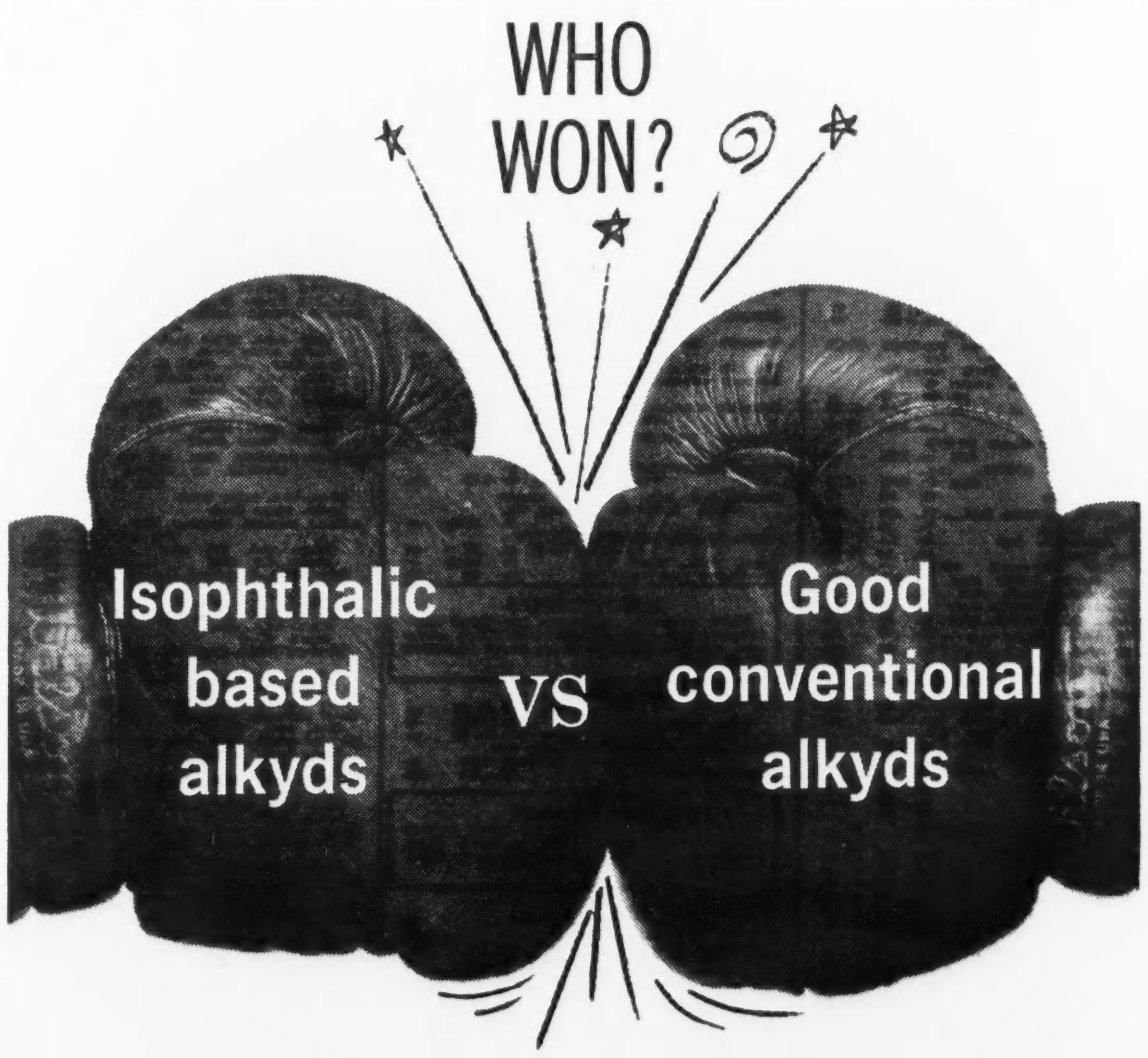
A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Almond oil, artif., bitter (see Benzaldehyde)
Almond oil, nat., bitter, f.p.a., bots. lb. 2.75 - 3.40
NF, bots. ..... lb. 3.00 - 3.30
sweet, USP, cns., dms..... lb. .60 - .70
Aloe, Cape, cs. ..... lb. .35 - .40
powd., cs. ..... lb .60 - .65
Curacao, kgs. ..... lb. .75 - —
powd., kgs. ..... lb. .85 - —
Aloin, USP, bbls., dms., kgs..... lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., c.l., works 100 lbs. 4.80 - —
Lump, dms., works..... 100 lbs. 5.55 - —
Powd., dms., works..... 100 lbs. 5.70 - —
Alum potassium, gran., bgs., c.l., works 100 lbs. 5.05 - —
Lump, dms., works..... 100 lbs. 5.80 - —
Powd., dms., works..... 100 lbs. 5.95 - —
Alum, potash-chrome, dms..... lb. .17 - —
Alumina, calcined, bgs., c.l., works. lb. .0530- —
bgs., l.c.l., works..... lb. .0655- .0830
Aluminum acetate, basic, fib. dms., l.c.l., works lb. .54 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms., l.c.l., works lb. .16½- —
cryst., dms., c.l., works 100 lbs. 21.00 - —
dms., l.c.l., works 100 lbs. 21.50 - —
Soln., 32° cbys., c.l., works lb. .0495- —
cbys., l.c.l., works lb. .0570- .1095
tanks, works 100 lbs. 3.95 - —
NF, gran., dms., works lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works lb. .16¼- —
bgs., l.c.l., works lb. .17¼- .19¼
bulk, c.l., basis 80%..... lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c. per lb. higher
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs. 11.00 - —
containers extra, l.c.l., works. 100 lbs. 11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0370- —
bgs., 20,000-40,000 lb. lots, same basis lb. .0395- —
bgs., 2,000-20,000 lb. lots, same basis lb. .0495- —
bulk, c.l., same basis..... lb. .0330- —
Light, bgs., c.l., t.l., works..... lb. .08 - —
bgs., t.l., to c.l., works..... lb. .09 - —
bgs., l.t.l., works..... lb. .10 - —
Aluminum hydroxide, dried, USP XV, fib. dms., works lb. .82½- —
fib. dms., contract, works lb. .79½- —
gel, pharmaceutical, 14-15% Al_2O_3, fib. dms., works lb. .22 - —
9-9½% Al_2O_3, fib. dms., works, alld lb. .19 - —
fib. dms., contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb. ingots, 10,000-lb. lots, frt. alld lb. .2610- —
50-lb. pigs, 10,000-lb. lots, frt alld, lb. .24 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste, lining, extra-fine, 200-lb. dm., divd lb. .70 - —
Standard lining, dms..... lb. .47½- —
Aluminum powder, lining, extra-fine, 250-lb. dm., dlvd lb. 1.12 - —
Standard lining, dms ..... lb. .82 - —
Aluminum resinate, precip., 2.1% Al, dms lb. .45 - —
Aluminum stearate, dibasic, ctns., c.l. lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton. 41.00 - —
bulk, c.l., same basis..... ton. 40.00 - —
lump, bgs., c.l., same basis.. ton. 44.00 - —
iron-free, bgs., c.l., works, frt. equald. 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works, lb. .30 - —
USP, powd., dms., works..... lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots..... oz. 6.50 - 10.00
p-Aminoacetanilide, tech., paste, dms., frt. alld. lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.35 - 1.60
Aminoazotoluene base, bbls., 100% basis lb. 1.15 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 - —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld. lb. 2.15 - 3.85
p-Aminodiphenylamine, tech., solid, dms., frt. alld. lb. 3.00 - —
Aminoethyl ethanolamine, dms., c.l., divd. lb. .475 - —
dms., l.c.l., divd..... lb. .49 - —
tanks, divd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld. lb. .44 - —
dms., l.c.l., frt. alld..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld... lb. 1.25 - —
Aminophylline, USP, 100-lb. dm., frt. alld. lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted. lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald. E. of Rockies. ton. 92.00 - —
refrigeration, tanks, works, frt. equald. E. of Rockies. ton. 94.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies. ton. 95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l., works, frt. equald. 100 lbs. 8.25 - —
bgs., l.c.l., same basis. 100 lbs. 8.65 - 12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms. lb. .40 - —
Ammonium benzoate, USP, 100-lb. dms., 1,000-lb. lots, works. lb. 1.90 - —
Ammonium biborate, gran., dms., c.l., works ton. 325 - —
dms., ton lots, ex whse. 100 lbs. 22.86 - —
dms., smaller lots, ex whse 100 lbs. 24.11 - —

Ammonium bicarbonate, dom., dms., c.l., works 100 lbs. 7.50 - —
dms., l.c.l., works 100 lbs. 9.50 - —
Ammonium bichromate, dms., works lb. .42 .43
Ammonium bifluoride, dms., dlvd lb. .3145- .3345
Ammonium bromide, NF, gran., dms., c.l., t.l., frt. equald lb. .44 - —
dms., l.c.l., same basis lb. .46 - —
Ammonium carbonate, USP, lump, dms., c.l lb. .15½- —
Ammonium chloride, white tech., fine gran., bgs., c.l., works 100 lbs 6.00 - —
bgs., l.c.l., works 100 lbs 8.00 8.45
USP, gran., 250-lb. dm lb. .20 - —
Ammonium citrate dibasic, 250-lb. dm f.o.b works lb .77 - —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works E lb. .45 - —
Ammonium hydroxide (see Ammonia aqeous)
Ammonium iodide, NF, 25-lb. jar, f.o.b. works lb. 4.51 - —
Ammonium lauryl sulfate, dms., c.l., frt. alld lb. .20½- —
dms. l.t.l. frt. alld lb .21½- —
tanks frt alld lb. .19½- —
Ammonium lignin sulfonate, bgs., bgs, l.c.l., works 100 lbs. 3.75 - 4.25
bgs. c.l. works 100 lbs. 3.40 - 3.65
Ammonium linoleate, 80%, dms., works lb. .50 .55
Ammonium molybdate, CP cryst., 400 lb dms. 15,000-lbs works. lb. 1.35 - —
400-lb dms. 2,000-lb contracts, work lb. 1.36 - —
400-lb dms. works lb. 1.37 - —
Ammonium nitrate, dom., tertilizer grade 33.5% N bgs., f.o.b. works ton.67.00 - —
dom., with dolomite, 20.5% N, bgs., c.l., Hopewell, Va ton.44.00 - —
Imp. Canadian, 33.5% N eastern, bgs. c.l., ship't point frt. equald to $3 ton base price ton.67.00 - —
Ammonium oxalate, tech. fine gran. 250-lb dm. f.o.b works E lb. .28½- —
Tech. powd. 200-lb dm., same basis lb .28½- —
Ammonium pentaborate, gran. bgs., c.l. works ton 193.00 - —
bgs., ton lots, ex whse 100 lbs.15.27 - —
bgs. smaller lots ex whse 100 lbs.16.52 -18.52
Ammonium pentaborate powder $10 per ton higher in bags
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 - —
dms., smaller lots, works lb. .20 - .23
Ammonium phosphate, comi., bgs., c.l., works frt equald lb. .09¼- —
bgs. l.c.l., same basis lb. .10 - —
Ammonium phosphate, dibasic, NF., V, bbls., dms lb. .46 - —
Dibasic, tech bgs. c.l. works, frt. alld lb. .09¼- —
Ammonium silicofluoride, dms., works lb. .12¼- .13¼
Ammonium sulfamate, bgs. c.l. t.l., works lb. .19 —
bgs. l.c.l. works lb. .20½- .27
Ammonium sulfate, standard granular, bulk f.o.b works, base price ton.32.00 - —
Purif., c.l., 100-lb. bgs., f.o.b. works lb. .08½- —
Ammonium sulfate, large granular, bulk, c.l. works ton.35.00 - —
bgs. c.l. works ton 40.00 - —
Tech. bulk c.l. t.l., works ton 52.00 - —
bgs. c.l. t.l., works ton.56.00 - —
bgs. l.c.l. t.l. works 100 lbs 3.20 5.20
Ammonium sulfide, liq., 40-44%, tanks frt equald, 100% basis, ton.160.00 - —
Ammonium sulfocyanide, tech (see Ammonium thiocyanate)
Ammonium thiocyanate, tech. cryst. dms. c.l. works lb. .20 - —
dms. l.c.l. works lb. .22 .26
Tech. soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼- —
Ammonium thioglycolate, coml., 55-gal. dms., ton lots, 100% basis lb 1.15 - —
d-Amphetamine hydrochloride, monobasic, dms lb.17.50 -23.50
dl-Amphetamine hydrochloride, dibasic dms lb 4.50 - 6.00
d-Amphetamine phosphate, 6lb dms., 100-lb. lots lb.15.00 - —
dl-Amphetamine phosphate, dms.lb 4.20 5.60
d-Amphetamine sulfate, 6lb. dms. lb.15.00 -17.00
dl-Amphetamine sulfate, 6lb. dms., lb. 4.20 5.60
Amyl acetate, ex fusel oil, tech., dist from 123° to 150°C., dms. c.l., frt alld E of Rockies lb. .18½- .19
dms l.c.l. same basis lb. .20 - .20½
tanks same basis lb. .16 - .16½
Ex pentane, reg., dms., c.l., dlvd. lb. .19 - —
dms. l.c.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .16½- —
Tech., dms., c.l., dlvd lb. .17 - —
dms. l.c.l., dlvd. lb. .18½- —
tanks dlvd lb. .14½- —
Syn., oxo process, dms., c.l., dlvd. lb. .19 - —
dms., c.l. dlvd lb. .20½- —
tanks, dlvd lb. .16½ —
Amyl alcohol, ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment. refd., 128°-132°C., dms., l.c.l., dlvd lb. .43½- —
refd., ACS grade, dms., l.c.l., dlvd lb. .45½- —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., l.c.l. frt. alld lb. .20½- —
tanks, frt. alld lb. .16½- —
Primary, dms., c.l. frt. alld lb. .20¼- —
dms., l.c.l. frt. alld lb. .21¾- —
tanks, frt alld lb. .17¾- —
Sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., l.c.l., same basis lb. .20½- —
tanks, same basis lb. .17 - —
Tert-synthetic, dms., c.l., frt. alld, E lb. .17 - —
dms., l.c.l. frt. alld E. lb. .18½- —
tanks frt. alld E. lb. .14½- —
1-pentanol (syn. normal), dms., c.l., works lb. .41½- —
dms., l.c.l., works lb. .43 - —
tanks, works lb. .39½- —
2-pentanol, dms., c.l., works lb. .65 - —
dms., l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb. 1.70 2.20
p-tert Amyl phenol, dms. c.l., works. lb. .38 - —
dms., l.c.l., works lb. .39 - —
Amyl salicylate, cns., dms. lb. .71 - —
Amyris oil, dms. lb. 1.40 - 1.50
Anethol, tech., dms. lb. .89 - .93
USP, cns., dms. lb. 1.05 - —
Angelica root, bls lb. .50 - 1.00
Angelica root oil, bots lb.120.00 -140.00
Angelica seed oil, bots lb.120.00 -130.00
Aniline, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l., t.l., 20,000 lbs. min., frt. alld lb. .33 - —
dms., l.c.l., same basis lb. .35 - —
Anise oil, USP, dms lb. 1.90 - 3.00
Anise seed, Turkish, bgs. lb. .24 - —
Spanish, bgs. lb. .34 - —
Anisic aldehyde, dms lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis lb. .82 - —
tanks, same basis lb. .78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½- —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5% bgs., c.l., frt. alld lb. .70 - —
bbls., l.c.l., same basis lb. .73 - —
Electrical grade, bgs. l.c.l., same basis lb 1.10 —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .32½- —
cs., c.l., mines lb. .33 - —
Antimony oxide, bgs., c.l., frt. alld. lb. .30 - —
bgs., l.c.l., frt. alld lb .31½- —
Prices of antimony oxide are 2c. higher west of the Rockies.
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .44½- —
pails, l.c.l., works lb. .46½- —
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E lb. .69½- —
USP, powd., 250-lb dm., same basis lb. .74½- —

Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms. lb. .55 - .70
Arabic gum, amber sorts, 10 bgs. lb. .21 - .23
USP, powd., bbls. lb. .27 - .30
Areca nuts, powd., bbls lb. .18 - .20
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 4.00 - —
l-Arginine free base, dms., 10-kilo 5-kilo lots or more kilo.60.00 - —
l-Arginine glutamate, dms., 10-kilo lots or more kilo.64.80 - —
l-Arginine monohydrochloride, dms., 5-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. .75 - —
Aromatic petroleum solvents (see Solvent Naphtha petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .031 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l., works lb. .06½- .07½
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb. 3.70 - —
Light shades, bbls. lb. 2.85 - —
Asafetida gum, cns lb. .36 - .40
Powd., bbls., dms lb. .75 - .80

Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton.80.00 —
7D, c.l. (30 tons), mines ton 75.00 —
7F, c.l. (30 tons), mines ton 71.00 —
7H, c.l. (30 tons) mines ton 61.00 —
7K, c.l. (30 tons) mines ton 50.00 —
7M, c.l. (30 tons) mines ton 44.00 —
7R, c.l. (30 tons), mines ton 43.00 —
7RF c.l. (30 tons) mines ton 44.00 —
7T, c.l. (30 tons), mines ton 41.00 —
7TF c.l. (30 tons) mines ton 44.00 —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher
Ascorbic acid, USP, dms. 100-kilos kilo. 5.60 - —
dms., less than 100-kilos kilo. 5.85 - —
Ash, black (see Barium sulfide)
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.43.00 - —
ex-whse, 5 tons or more, N. Y., N. J ton.89.50 - —
select, brilliant black, 340°-360°F fusing pt., bgs., c.l., mines, ton 46.00 - —
270°-295°F. fusing pt., bgs., c.l., mines ton.43.00 - —
Asphalt, petroleum, cut-back, tanks, tank-wagon, refy. gal. .09½- —
emulsion, tanks, tankwagon, refy. gal. .09½- —
steam-refd., 50-80 penetration, tanks, tankwagon, refy ton.21.00 - —
85-300 penetration, tanks, tankwagon, refy ton.20.00 - —



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7264

Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins ... oz. Nom.
Atropine sulfate, USP, bots, 10 oz. lots oz. 5.25 - —
Azelaic acid, bgs., c.l., dlvd .... lb. .37 - —
bgs., ton lots, same basis ..... lb. .38 - —

B

Bacitracin, sterile, over 500,000,000 units 50,000 units. .90 - —
non-sterile, over 500,000,000 units, 50,000 units. .65 - —
Balm of Gilead buds dried bgs lb 1.25 1.35
Barberry root bark bgs lb 1.00 1.10
Barbital, NF 100-lb dms. f.o.b. works lb 4.50 —
Barbital sodium, NF 100-lb dms lb 4.75 —
Barium carbonate precip., bgs. c.l., works ton 111.50 —
bgs. smaller lots, works ton 126.50 —
Barium chlorate dms., works lb .32 .41
Barium chloride anhyd., bgs. c.l., works ton 176.00 —
bgs., l.c.l., works ton 196.00 —
NF, cryst., dms., 400-lbs., works lb .23 —
Tech., cryst., bgs c.l. works, 100 lbs 7.00 -
bgs. l.c.l. works 100 lbs 8.00 - —
Barium chromate bgs. frt. equald. lb .38 - —
Barium dioxide (see Barium peroxide)
Barium hydrate, cryst., bgs., c.l. t.l., frt. equald ton 208.00 —
bgs., l.c.l., t.l. frt equald ton 218.00 —
Barium monohydrate, 99% bgs., c.l. frt equald 100 lbs 11.25 —
bgs. l.c.l., frt equald 100 lbs 11.75 —
Barium monoxide (see Barium oxide)
Barium nitrate bbls. c.l., t.l., dlvd lb .16 - —
bbls. l.c.l., t.l., dlvd lb .17 - —
Barium oxide, grd., dms., c.l., t.l., frt equald ton 275.00 —
dms. l.c.l. t.l. frt equald ton 285.00 —
Barium peroxide, dms. frt equald. lb .20 —
Barium stearate ctns. c.l. frt alld. lb .41 —
ctns. l.c.l. same basis lb. .42 .46
Barium sulfate, tech (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb dm. lb. .19 - —
Barium sulfide, dms., c.l. works, ton 100.00 —
dms., l.c.l., works ton 110.00 —
Barytes, southern off-color, bgs. mines ton 30.00 —
95-75% bgs., mines ton 30.00 —
white, water-grd, paper bgs., c.l. St. Louis ton 60.00 60.25
paper bgs. ex wire, New York ton 84.85 —
Battery acid, chys., c.l., works, E. 100 lbs 2.35 —
chys, l.c.l., works, E 100 lbs 2.65 10.95
Bauxite, bulk, mines ton 7.00 10.00
Bay oil, NF, Puerto Rican, 50-55% cns lb. 3.75 - —
NF, Dominica, 50-55% cns., dms lb. 3.60 - 4.50
Bayberry wax, bgs lb .65 .70
Beeswax, crude, African, bgs ... lb. .53 - .54
Brazilian, bgs. ... lb. .57 - .58
Central American, bgs ... lb. .55 - .56
Chilean, bgs. ... lb. .59 Nom.
Refd., USP, bleached white, bricks 100-lb ctns lb. .67 .69
white, slabs, 100-lb ctns lb. .66 .68
yellow, bricks, 100-lb. ctns lb. .60 .62
yellow, slabs, 100-lb. ctns lb. .59 .61
Belladonna leaf, bls ... lb. .25 - .30
Belladonna root, bls ... lb. .35 - .38
Bentonite, dom. 200 mesh, bgs. c.l. mines ton 14.00 —
Imp. Italian, white, high gel., bgs. 5-ton lots ex whse ton 95.20 - —
bgs., 1-ton lots, ex whse ton 99.00 - —
Imp. Italian, white, low gel bgs., 5-ton lots, ex whse ton 93.40 - —
bgs. 1-ton lots ex whse ton 97.16 - —
Benzal chloride, chys., works lb. .44 - —
Benzaldehyde, NF, dms lb. .74 - —
Tech., dms., c.l., t.l. lb. .42 - —
dms., l.c.l. lb. .44 - —
Benzene, industrial or nitration, tanks, works:
Baton Rouge, La. gal. .31 - —
Bethlehem, Pa. gal. .31 - —
Birmingham district gal. .31 - —
Chicago district gal. .31 - —
Cleveland district gal. .31 - —
Geneva, Utah gal. .31 - —
Houston, Tex. gal. .31 - —
Johnstown, Pa. gal. .31 - —
Lackawanna, N. Y. gal. .31 - —
Lone Star, Tex. gal. .31 - —
Lorain, Ohio gal. .31 - —
Mennequa, Colo. gal. .31 - —
Middletown, Ohio gal. .31 - —
Philadelphia district gal. .31 - —
Pittsburgh district gal. .31 - —
Port Arthur, Tex. gal. .31 - —
St. Louis, Mo. District gal. .31 - —
Sparrows Point, Md. gal. .31 - —
Syracuse, N. Y. gal. .31 - —
Terre Haute, Ind. gal. .31 - —
Youngstown, Ohio gal. .31 - —
Benzene hexachloride 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride tech., high gamma, bgs., c.l., t.l. consignment, dlvd. gamma-unit .0075 —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit .0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit .0056- —
Benzidine hydrochloride, bbls., c.l., frt alld., 100% basis lb 1.19 - —
bbls., l.c.l., same basis lb 1.21 - —
Benzidine sulfate, tech., bbls, frt. alld. 100% basis lb 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb 2.20 - —
AAOT, bbls., dlvd. lb 2.55 - —
Lightfast, bbls. dlvd. lb 3.40 - —
Benzocaine, dms. 100-lbs. frt alld lb 3.25 —
Benzoic acid, tech., dms., c.l., t.l., frt. alld lb. .20 - —
dms., l.c.l., t.l., same basis lb. .24 - —
Benzoic acid in bags, ½c. lower.
USP, bbls., dms., ton lots lb. .48 - —
bbls. dms. 1,000-lb lots lb .50 —

BENZOL
Benzol quotations, both coaltar and petroleum, may be found under Benzene

Benzoin gum Sumatra cs. lb .32 —
Benzophenone dms lb 1.35 1.45
Benzotriazole, tech dms. 1,000 lb lots, works lb 1.95 —
Benzotrichloride, chys., 1,000-lb. lots or more, frt. equald. lb. .21 - —
chys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, chys. dms., c.l., works, frt. equald lb. .22 - —
chys., l.c.l., same basis lb. .23 - —
tanktrucks, dlvd Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 1.08
Benzyl acetate, f.f.c. cns. dms lb. .54 - —
Benzyl alcohol, NF, dms. lb. .54 - —
Tech., dms., dlvd lb. .47½- .65
Benzyl benzoate, USP, 40-lb. dms. lb. .62 - —
Benzyl chloride, tech., dms., c.l., f.o.b. frt. equald lb. .23 - —
dms., l.c.l., same basis lb .24 - —
tanktrucks, dlvd., Metropolitan area lb. .21 - —
Benzyl cinnamate, cns lb. 3.80 4.00
N-Benzyl-N,N-dimethylamine, 50 dms. frt. alld lb 1.25 - —
12-49 dms. same basis ... lb 1.35 - —
1-11 dms., same basis ... lb 1.90 - —
Benzyl formate, cns. ... lb. 1.70 1.85
Benzyl isoeugenol, cns. ... lb 8.20 8.30
Benzyl propionate, bots. ... lb. 1.30 - 1.35
Benzyl salicylate, bots ... lb. 1.50 - 1.85
Benzylidine acetone, bots ... lb. 1.65 - 1.75
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate cns lb 56.50 - —
Berberine hydrochloride, bots lb 56.50 - —
Bergamot oil, nat. NF Italian, cns. lb. 11.00 - 12.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene).
Betanaphthol (see b-Naphtol).
Betanaphthylamine (see b-Naphthylamine).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin cryst., bots ... gram 10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns ... lb. 1.50 - 1.90
Rectified, cns. ... lb. 1.75 - 2.00
Bismuth chloride, tars ... lb 5.11 —
Bismuth hydroxide, dms lb 4.60 4.65
Bismuth metal, bxs, ton lots lb 2.25 —
Bismuth nitrate, cryst., 200-lb. dm. lb 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.92 - —
Bismuth subcarbonate, USP, 25-lb. dm., f.o.b., works lb. 3.70 - —
Bismuth subgallate, NF, 200-lb dm., f.o.b. works lb 3.98 - —
Bismuth subiodide, fib. dms lb 5.47 —
Bismuth subnitrate, NF, 200-lb dm., f.o.b., works lb. 3.10 - —
Bismuth subsalicylate, USP, 100-lb dm., f.o.b. works lb 4.15 - —
Bismuth trioxide, 100-lb. dms., f.o.b. works lb 4.40 - —
Bismuth-ammonium citrate, USP, powd., lars lb 4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt, 70,000 lbs or more, frt. alld lb. .30½- —
bgs., c.l., t.l., less than 70,000-lbs., same basis lb. .31 - —
bgs. l.c.l., same basis lb .32½- —
Blackberry root bark, ots lb .50 .55

BLACK PIGMENTS
Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs. c.l., works ton 180.00 —
bgs., l.c.l., works ton 170.00 —
bgs., l.c.l., New York whse ton 215.00 —
Blood, dried, 16-16½% ammonia, bgs., New York unit-ton 5.50 —
Bloodroot, bls. lb. .80 - .85

BLUE PIGMENTS
Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de rose oil, Brazilian, dms. lb. 1.90 - —
Peruvian, dms. lb 1.65 - —
BON acid maroons, pure, bbls lb 1.75 - —
Resinated, bbls lb 1.50 - —
Bonemeal, steamed, works, E. ton 100.00 —
Bone black, dms. c.l. frt. alld lb .1750- 2225
l.c.l. works lb .1950- 2425
Pacific coast bone black prices 3¼c. per lb higher
Bone phosphate, defluorinated, of lime (see Defluorinated phosphate).
Bone phosphate, precip. (see Calcium phosphate, tribasic).
Borax, tech, anhyd., 99½%, bgs., c.l., works ton 92.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 7.67 - —
bgs., smaller lots, same basis, 100 lbs. 8.91 -10.91
bulk, c.l., works ton 83.00 —
Tech., gran., decanydrate, 99½%, bgs., c.l., works ton 50.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 5.31 - —
bgs. smaller lots, same basis 100 lbs. 6.56 8.56
bulk, c.l., works ton 43.50 —
Tech., pentahydrate, 99½%, bgs., c.l., works ton 64.50 —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 6.12 - —
bgs. smaller lots, same basis 100 lbs. 7.37 - 9.37
bulk, c.l. works ton 58.00 —
USP, powd., bgs., c.l., works ton 54.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.57 - —
bgs., smaller lots, same basis 100 lbs. 7.82 - 9.82
Bordeaux powder, tribasic, bgs. c.l., dlvd lb. .24 - —
bgs. l.c.l., same basis lb .26 - —
Boric acid, tech. anhyd. 99.9% bgs., c.l. works ton 335.00 —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 21.27 - —
Tech, anhyd., 99%, bgs., smaller lots, same basis 100 lbs. 22.52 -24.52
cryst. 99.9% bgs. c.l. works ton 163.50 —
Tech., cryst., 99.9%, bgs., ton lots, ex whse., New York or Chicago 100 lbs. 11.67 - —
bgs. smaller lots, same basis, 100 lbs. 12.92 -14.93
Boric acid, tech., cryst., 99.9%, dms., c.l., works tin. 188.50 - —
dms., ton lots, ex whse., New York or Chicago 100 lbs. 13.17 - —
dms., smaller lots, same basis 100 lbs. 14.42 - —
gran., 99.9%, bgs., c.l., works, ton 112.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 8.78 - —
bgs. smaller lots, same basis, 100 lbs. 10.03 -12.03
dms. c.l. works ton 137.00 —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 10.29 - —
dms. smaller lots same basis 100 lbs. 11.54 - —
bulk, c.l. works ton 106.00 - —
powd., bgs., ton lots, ex whse, New York or Chicago 100 lbs. 9.20 - —
bgs., smaller lots same basis 100 lbs. 10.45 -12.45
dms., ton lots, ex whse., New York or Chicago 100 lbs. 10.71 - —
dms., smaller lots, same basis 100 lbs. 11.96 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb. 2.75 - —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 - —
100-lb. cyls., works lb. 1.70 - —
Boron trifluoride, gas, cyls., t.l., works lb. .70 - —
cyls., t.l.l. works lb. .70 - —
Brimstone (see Sulfur).
Broenner's acid, bbls lb. 1.53 - —
Bromine, purif., cs., c.l., t.l., dlvd. E. of Rockies lb. .32 - —
cs., l.c.l., same basis lb. .34 - .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
ret. dms., l.c.l., same basis lb. .31 - .34
tanks, same basis lb. .21½- —
Bromochloromethane, dms., c.l., frt. equald lb. .48 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Bromoform, pharmaceutical grade, 5-gal. cby., frt. equald lb. 1.95 - —
Bromstyrol, bots lb 5.25 5.35
Brucine, cns. ... oz. .75 - 1.10
Brucine sulfate, NF, cns. ... oz. .65 - .85
Buchu leaves, bbls ... lb. .60 - .65

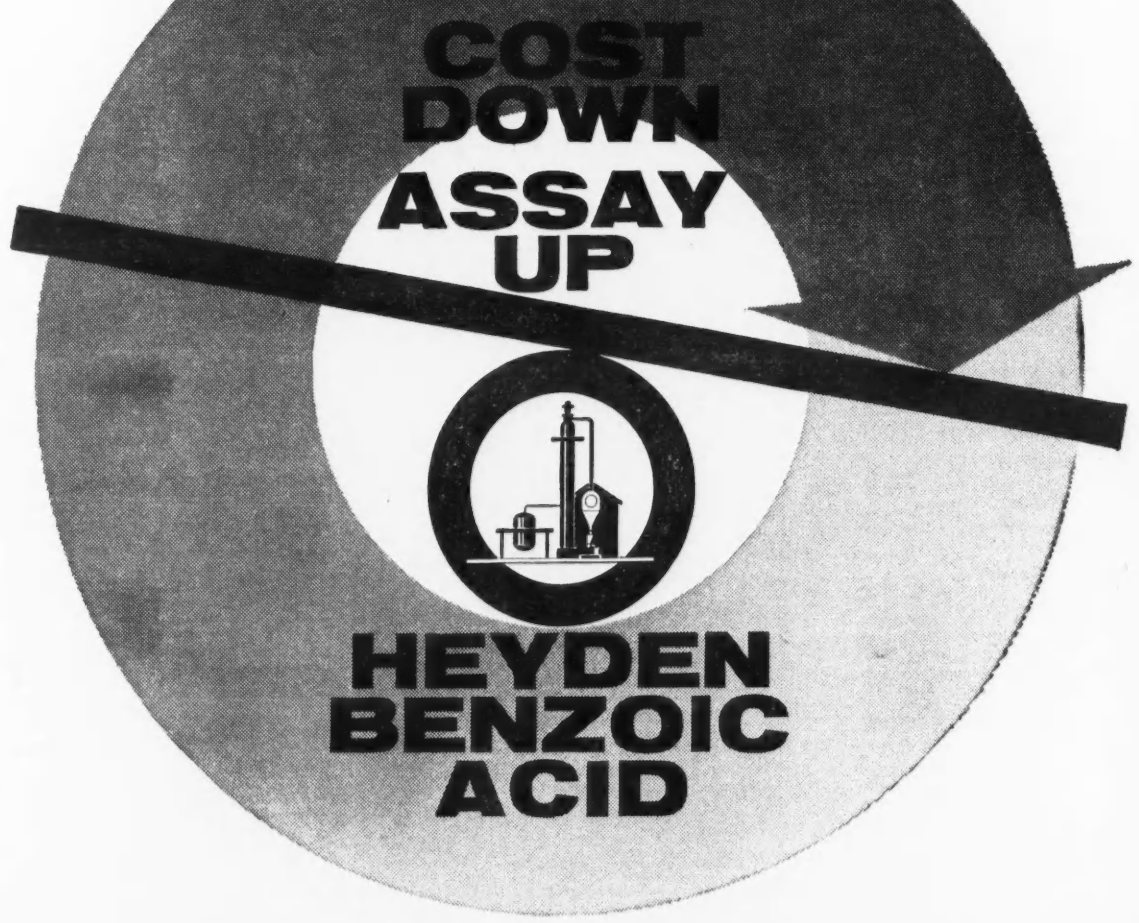
BROWN PIGMENTS
Brown pigment quotations are listed individually. For example, prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, cetd cyls., c.l., refy lb. .21 —
cyls., l.c.l., refy lb. .22 - —
tanks, dlvd lb. .12¾- —
Butene-1, tanks, works lb. .0625- —
Butene-2, tanks, works lb. .0570- —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., same basis lb. .18½- —
tanks, same basis lb. .14½- —
Syn., dms., c.l., dlvd. E ... lb. .17 - —
dms., l.c.l. same basis ... lb. .18½- —
tanks, same basis lb. .14½- —
sec-Butyl acetate, syn. dms., c.l., dlvd. E lb. .14¾- —
dms., l.c.l. same basis lb. .16¼- —
tanks, same basis lb. .12¼- —
n-Butyl acrylate, dms. c.l. or t.l., straight or mixed frt. alld. E lb. .37½- —
dms., l.t.l., same basis lb. .38½- —
tanks, same basis lb. .35 - —
n-Butyl alcohol, ferment, dms., c.l., frt. alld lb. .18 - —
dms., l.c.l. frt. alld lb. .19½- —
tanks, frt. alld lb. .15½- —
Syn., dms., c.l., dlvd. E ... lb. .17 - —
dms., l.c.l., frt. alld. ... lb. .19½- —
tanks, frt. alld ... lb. .15½- —
Sec-synthetic, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd lb. .12½- —
Tert-synthetic, dms., c.l., frt. alld., dlvd. E lb. .16 - —
dms., l.c.l., same basis lb. .17½- —
tanks, dlvd lb. .12½- —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works lb. .37½- —
dms., l.c.l., works lb. .38¼- —
n-Butyl ether, dms., c.l., works lb. .35¼- —
dms., l.c.l., works lb. .36 - —
tanks, works lb. .33¼- —
Butyl lactate, dms. c.l. frt. alld. E. Rockies lb. .42½- —
dms., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Butyl laurate, dms., works lb. .37½- —
Butyl methacrylate, dms., c.l., t.l., works lb. .55 - —
dms. l.c.l., works lb. .55½- —
Butyl oleate, dms., c.l., frt. alld. lb. .26 - —
dms., l.c.l., frt. alld ... lb. .26½- .27
Butyl phenylacetate, dms lb 4.50 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, CP, dms., c.l., frt. alld. E. of Rockies lb. .28½- —
dms., l.c.l., frt. alld. E. of Rockies lb. .29 - .29¾
tech., dms., c.l., same basis ... lb. .25¾- —
dms., l.c.l., same basis ... lb. .26¼- .26¾
Butylamine (see Mono-, Di- and Tri-butylamine).
tert-Butylamine, dms. c.l., t.l., f.o.b. works lb. .47 - —
dms., l.c.l., same basis lb. .47½- —
tc., t.l., same basis ... lb. .45 - —
Butylated hydroxyanisole, food grade, dms. dlvd lb 4.75 - —
6-tert-Butyl m-cresol (see Mono-tert-butyl-m-cresol)
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
1,3 Butylene glycol, dms. c.l., t.l., dlvd lb. .20½- —
dms., l.c.l., t.l., f.o.b. works lb. .22 - —
tanks, dlvd lb. .18 - —
p-tert-Butylphenol, bgs., c.l., frt. alld lb. .25½- —
bgs., l.c.l., same basis ... lb. .26½- —
tanks, same basis ... lb. .23½- —
Butyraldehyde, dms., c.l., dlvd lb. .22 - —
dms., l.c.l., dlvd. ... lb. .23½- —
tanks, dlvd lb. .19½- —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 - —
dms., l.c.l., same basis lb. .34½- —
tanks, same basis lb. .32½- —
Butyric ether (see Ethyl butyrate).
Butyrolactone, dms., c.l., t.l., works lb. .40 - —
dms. l.c.l. same basis lb. .43 - —
n-Butyronitrile, dms., c.l., dlvd lb. .56½- —
dms., l.c.l., dlvd. ... lb. .57½- —
tanks, dlvd. ... lb. .54 - —

C

Cacao butter (see Cocoa butter)
Cadmium CP red, dark shade, bbls., frt alld E of Rockies lb 5.55 - —
Light shade, bbls same basis lb 4.65 - —
Medium shade, bbls., same basis, lb. 5.30 - —
Medium, light shade, bbls., same basis, lb. 4.90 - —
Orange-red shade, bbls same basis lb 4.30 - —
Yellow, all shades, bbls frt alld E. of Rockies lb. 3.02 - —
Cadmium chloride, 400-lb. dms., f.o.b. shipping point lb. 1.86½- —
Cadmium iodide, 25-lb fib. dms lb 6.75 7.00
Cadmium metal, ingots or sticks, ton lots, ea., dlvd lb. 1.60 - —
Cadmium nitrate, purif. cryst., 400-lb. dms., less than 5,000 lbs., f.o.b. shipping point, lb. .94 - —
400-lb. dms., 5,000 lbs. or more, same basis lb. .90 - —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E. of Rockies lb. 1.73 - —
Cadmium-mercury lithopone red, dark shade, bbls. same Basis lb. 2.03 - —
Red, light shade, bbls., same basis, lb. 1.80 - —
Red, medium shade, bbls., same basis lb. 1.95 - —
Red, medium light shade, bbls., same basis lb. 1.88 - —
Red, maroon shade, bbls same basis lb. 2.11 - —
Cadmium-selenide lithopone maroon, bbls., frt. alld E. of Rockies lb. 2.84 - —
Orange, bbls., same basis ... lb. 1.66 - —
Cadmium-selenide lithopone red, orange-red shade, bbls., same basis lb. 1.80 - —
Red, dark shade, bbls. same basis lb. 2.64 - —
Red, light shade, bbls., same basis lb. 1.96 - —
Red, medium shade, bbls., same basis lb. 2.31 - —
Red, medium-light shade, bbls., same basis lb. 2.08 - —
Cadmium-selenide, lithopone yellow, all shades, bbls. frt alld E. of Rockies lb. 1.27 - —
Caffeine, NF citrated, dms. 100-lb. lots or more lb 2.70 - —
USP, syn., cryst., hydrous, dms., 100-lb. lots or more, frt. alld lb. 2.25 - —
hydrous, powd., 150-lb. dms., frt. alld lb. 2.25 - —
USP, syn., cryst., anhyd., powd., dms., 100-lb. lots or more, frt. alld lb. 2.40 - —
Cajuput oil, native, cns. ... lb 1.75 2.00
Redist. USP cns ... lb 1.90 2.10
Calamine, USP dms. ... lb .34 —
Calamus oil, bots ... lb. 12.00 -20.00
Calciferol, cryst., 10-kilo or more lots, works gram .54 - —
1-10 kilo lots gram .55 - —
Calciferol in edible oil (see Viosterol).
Calcium p-aminosalicylate trihydrate fib. dms. 100 lbs. or more frt. adjusted lb 3.10 - —
Calcium bromide, NF, tars, 100 lbs. or more lb. 1.10 - —
Calcium carbide, standard generator size, 600-lb dms. c.l., dlvd ton 149.00 - —
Calcium carbonate, nat., dry grd., air floated, 325 mesh, bgs. c.l. works ton 10.50 - —
Chalk, whiting, 325 mesh, bgs., c.l., works ton 32.00 -34.00
water-grd. ½ to 10 microns, bgs., c.l., works ton 30.00 —
10 to 20 microns, bgs., c.l., works ton 17.00 -18.00
Precip., dense, bgs., c.l., works, ton 30.00 -38.50
bgs. l.c.l., works ton 45.00 -53.50
medium, bgs. c.l., works ton 38.00 —
bgs. l.c.l. works ton 48.00 -53.00
Surface treated, bgs., c.l., works, ton 42.00 -44.00
bgs., l.c.l., works ton 57.00 59.00
ultrafine, bgs. c.l., works ton 117.50 167.50
bgs l.c.l., works ton 137.50 -187.50
Calcium chloride, conc. flake or pellet 94-97%, paper bgs., c.l. works, frt equald ton 39.30 - —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton 32.00 - —
Liquor, 40% tanks, frt equald, ton 12.50 - —
Powd., 77% min., paper bgs., c.l., works, frt. equald ton 38.00 - —
Purif., gran., dms lb. .27 —
Solid, 73-75%, dms., c.l., frt. equald ton 30.50 - —
dms., l.c.l. works, frt. equald, ton 36.00 -73.00
USP, gran., dms. lb. .32 - —
Calcium chromate, bgs., dlvd lb. .37 - —
Calcium citrate, 100-lb dms lb. 1.95 - —
Calcium gluconate, USP, AA grade, 100-lb. dm., ton lb. 73½- —
USP, powd., 100-lb dm., ton lb. 66½- —
Calcium hydride, lump, dms. works, lb. 2.20 3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd E. of Rockies cs. 27.50 - —
100-lb. dms., same basis dm. 39.50 - —
Calcium hypophosphite, dms, 1,000-lb lots lb. 1.28 - —
Calcium iodide, 25-lb. jars, works, lb. 4.27 - —
Calcium lactate, NF, dms., f.o.b. works lb. .43 - .46
Calcium mandelate, USP, 150-lb. dm., works lb. 3.25 - —
Calcium naphthenate, liq., 4% Ca., dms., frt equald lb. .30 - —
Calcium pantothenate, USP, 1 kilo or more kilo 20.00 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenosulfonate, dms lb. 1.24 1.25
Calcium phosphate, dibasic, USP, dihydrate, bgs., c.l., frt. equald 100 lbs. 8.25 - —
Feed grade, 18½% P, bgs., c.l., t.l., Bonnie, Fla., frt. equald ton 81.00 - —
bgs. c.l. t.l., f.o.b. Texas City works ton 75.50 - —
Feed grade, 21% P., bgs., c.l., t.l., frt. equald ton 97.65 - —
bgs., l.c.l. frt equald ton 107.65 - —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.
Calcium phosphate, monobasic, bgs., frt. equald 100 lbs. 7.45 - —
bgs., smaller lots, same basis, 100 lbs. 7.95 - —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 - —
bgs. l.c.l. frt. equald 100 lbs. 10.00 - —
Calcium propionate, any quantity, dms., dlvd E. of Rockies, lb. .34½- —
Prices W. of Rockies 3c. per lb more.
Calcium phytate, bgs., 50 lbs. or more, f.o.b. warehouse N. Y. lb. .39 - —
Calcium resinate, precip., dms., frt. alld., works lb. .45 - —
Calcium silicate hydrated, bgs., c.l., works lb. .06½- —
bgs., l.c.l., works lb. .07 - —
Calcium silicate, paint grade (see Wollastonite)
Calcium stearate, ctns., c.l. ... lb. .39 - —
ctns., l.c.l. ... lb. .40 - .44

Calomel, NF mild, powd., dms., 100-lbs., f.o.b. works	lb	**4.32**	**—**
NF, mild, precip., dms., 100-lbs., f.o.b. works	lb.	**5.67**	**—**
Camphene, 40° m.p., dms incl., c.l., works	lb.	.15	—
dms. incl., t.c.l., same basis	lb.	.16½	—
tanks, same basis	lb.	.12½	—
Camphene chlorinated 67-69% (see Toxaphene)			
Camphor, monobromated, NF, dms., kgs	lb.	3.63	3.70
Camphor, syn., tech., 1 bbl. or more,	lb.	.45	—
USP, powd., bbls., 1,000-lb. lots	lb.	.56	—
bbls., smaller lots	lb.	.57	—
tablets, ctns., 1,000-lb. lots	lb.	.80	—
ctns., 500-lb. lots	lb.	.81	—
ctns., smaller lots	lb.	.82	—
Camphor oil, sassafrassy, dms.	lb.	.32	.50
White, dms.	lb.	.24	.40
Cananga oil, native, cns.	lb.	5.00	6.50
Rectified, cns	lb.	7.25	10.00
Candelilla wax, crude, bgs.	lb.	.57	.59
Refd., pure, bgs.	lb.	.61	.63
Powdered candelilla wax 20 to 100 mesh, 8c. higher.			
Cantharides, Chinese, cs.	lb.	1.50	—
powd. bgs.	lb.	1.75	—
Russian bgs.	lb.	2.25	—
powd. bgs.	lb.	2.50	—
Capric acid, dms	lb.	.27½	.29¾
tanks	lb.	.24¾	—
Caprolactam monomer, flake, bgs., c.l., t.l., f.o.b. frt. equald.	lb.	.49	—
bgs., l.c.l., l.t.l., same basis	lb.	.54	—
molten, tanks, same basis	lb.	.46	.462
Caprylic alcohol 85% dms. c.l., t.l., works	lb.	.19	—
dms., t.l.l., same basis	lb.	.19½	—
tanks, frt. equald	lb.	.16½	—
Sec. 92-99% dms. c.l. f.o.b. works	lb.	.22	—
dms. l.c.l., f.o.b. works	lb.	.23	—
tanks, f.o.b. works	lb.	.19½	—
Caprylic acid, dms	lb.	.27¼	.29¾
tanks	lb.	.24¾	—
Capsicum (see Pepper red)			
Capsicum oil (see Capsicum oleoresin).			
Capsicum oleoresin NF from dom pepper, dms	lb.	**4.00**	**—**
NF, from African pepper, dms.	lb	4.50	—
Caraway oil, NF, dms	lb.	**4.25**	**4.50**
Caraway seed Danish, bgs.	lb.	.16	—
Dutch, bgs.	lb.	.16¼	—
Carbazole 97%, bbls, ton lots, works	lb.	**1.05**	**—**
Carbon black, channel, rubber, beads, bulk, c.l. works	lb.	.08	—
bgs., c.l., works	lb.	.08½	—
bgs., l.c.l., ex whse. or dlvd	lb.	.16¼	—
Furnace, fast extruding, bulk, c.l., works	lb.	.06¼	—
bgs., c.l., works	lb.	.06¾	—
bgs., l.c.l., ex whse	lb.	.13½	—
high abrasion, bulk, c.l., works	lb.	.07¼	—
bgs., c.l., works	lb.	.07¾	—
bgs., l.c.l., dlvd. or ex whse	lb.	.14½	—
high modulus, bulk, c.l., works	lb.	.05¾	—
bgs., c.l., works	lb.	.06¼	—
bgs., l.c.l., ex whse	lb.	.13	—
semi-reinforcing, bulk, c.l., works	lb.	.05¼	—
bgs., c.l., works	lb.	.05¾	—
bgs., ctns., l.c.l. ex whse	lb.	.12½	—
pigment, high color beads, bgs., c.l., works	lb.	.73	—
ctns., l.c.l., dlvd. or ex whse	lb.	.87	—
medium color, uncompressed, bgs., c.l., works	lb.	.14	—
bgs., l.c.l., dlvd. or whse	lb.	.22½	—
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E	ton	60.00	115.00
bulk, 3,000,000 lbs. or more, dlvd Metropolitan areas, E	ton	55.00	—
Solid, bulk, wholesale, works	ton	85.00	—
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points	lb.	.071	—
55-gal. dms., l.c.l., same basis	lb.	.086	.091
5-gal. dms., 30 dms. to c.l., same basis	lb.	.131	—
5-gal. dms., less than 30 dms., same basis	lb.	.161	—
tanks, f.o.b. works	lb.	.0450	—
Carbon tetrachloride CP, consumers dms., c.l., frt. alld.	lb.	.12¾	—
dms., l.c.l., frt. alld.	lb.	.13¼	—
Tech., consumers dms., c.l., t.l., frt. alld	lb.	.11¾	—
dms., l.c.l., l.t.l., frt. alld	lb.	.14¼	—
tanks, frt alld	lb.	.10¾	.11¼
Carboxymethyl cellulose (see CMC).			
Carbromal NF dms., 100-lb lots, works	lb.	**4.00**	**4.25**
dms. smaller lots, works	lb.	4.10	4.75
Cardamom oil, NF, bots	lb.	40.00	43.00
Cardamom seed, bleached "A"	lb.	3.20	—
Bleached "B"	lb.	3.10	—
Decorticated Alleppey, cs.	lb.	2.60	—
Guatemala, cs.	lb.	2.60	—
Green, Alleppey, bgs.	lb.	1.95	—
Ceylon, bgs.	lb.	2.00	—
Carmine No. 40, NF, bulk, 100-lb lots or more, dlvd.	lb.	16.80	—
bulk, smaller lots, dlvd.	lb.	16.90	17.30
Carnauba wax, chalky, bgs., ton lots.	lb.	.56	.58
North Country, No. 2, crude, bgs., ton lots	lb.	.64	.65
refd., pure, ton lots	lb.	.72	.74
North Country, No. 3, Ceara, crude, ton lots	lb.	.53	.57
North Country, No. 3, Parnahyba, crude, ton lots	lb.	.53	.60
No. 3, refd., pure, bgs., ton lots.	lb.	.64	.66
No. 1, Ceara, yellow, bgs., ton lots.	lb.	.86	.88
Parnahyba, yellow, bgs., ton lots.	lb.	.88	.90
Powdered carnauba wax, 20 to 100 mesh 8c. per lb. higher.			
Carotene tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram,		.20½	—
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works million units.		.12	—
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units.		.144	—
b-Carotene, in vegetable oil, semi solid suspension 400,000 A units per gram cns kilo		57.60	—
b-Carotene, liquid in vegetable oil, 500,000 A units per gram. cns kilo		72.00	—
b-Carotene, pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns kilo		240.00	—
Carvol, bots.	lb.	5.00	5.40
Cascara sagrada bark, bulk	lb.	.32	—
Casein, dom., edible, acid precip., 30 mesh, bgs., 10,000-lb. lots or more, works	lb.	.56	—
80 mesh, bgs., 10,000-lb. lots or more, works	lb.	.64	—
Imp., inedible, acid-precip., grd., Argentine, bgs., c.l., ex-dock, Eastern seaport	lb.	.18½	.19¼
Casein, imp., Australian bgs., c.l. same basis	lb.	.20	20½
New Zealand, same basis	lb.	.24	.25
Cashewnut shell liquid treated, dms., c.l., Newark, N.J	lb.	.24	—
dms., ton lots, same basis	lb.	.25	—
t.w., same basis	lb.	.22½	—
Cassella acid, dms. frt. alld., 100% basis	lb.	1.44	1.75
Cassia oil, redist., USP, cns.	lb.	6.50	8.00
Cassia, Padang, "A," bls.	lb.	.28½	—
"B," bls.	lb.	.27½	—
"C," bls.	lb.	.25½	—
Korintje "A," bls.	lb.	.27½	—
"B," bls.	lb.	.26½	—
"C," bls.	lb.	.25¼	—
Castor oil, dom., blown, dms., c.l.	lb.	.2550	—
dms., l.c.l.	lb.	.2650	—
dehydrated, bodied, dms., c.l.	lb.	.2710	—
dms., l.c.l.	lb.	.2860	—
tanks	lb.	.2510	—
dehydrated, unbodied, dms., c.l.,	lb.	.2560	—
dms., l.c.l.	lb.	.2660	—
tanks	lb.	.2360	—
hydrogenated, bgs., c.l.	lb.	.2425	—
bgs., ton lots	lb.	.2825	—
bgs., l.c.l., dlvd	lb.	.3025	—
raw, No. 1, dms., c.l.	lb.	.2200	—
dms., l.c.l.	lb.	.2300	—
tanks	lb.	.2000	—
No. 3, tech., dms., c.l.	lb.	.2125	—
dms., c.l.,	lb.	.2225	—
tanks	lb.	.1925	—
refd., deod., dms., c.l.	lb.	.2650	—
dms., l.c.l.	lb.	.2750	—
tanks	lb.	.2450	—
USP, dms., c.l.	lb.	.2350	—
dms., l.c.l.	lb.	.2450	—
tanks	lb.	.2150	—
Castor oil, imported, No. 1, Braz., tanks, New York	lb.	.16¼	—
No. 3, tanks, same basis	lb.	.16	—
Sulfonated, 50%, dms., works	lb.	.15	.15½
75%, dms. works	lb.	.19	.19½
Castor oil acids, dehydrated, dms.	lb.	.41¼	.43¼
Split, dms.	lb.	.33¾	.34¾
Castor pomace, bgs., c.l., works	ton	35.00	—
Castoreum nat., cns.	lb	5.25	—
Syn., cns.	lb	9.00	—
Catechol, CP, cryst., fib., dms., works	lb	2.17½	—
Resub., dms., works	lb	4.29½	—
Catnip leaves, Southern, bls	lb.	Nominal	
Caustic potash (see Potash caustic)			
Caustic soda (see Soda caustic)			
Cedarleaf oil, USP XIII cns., dms	lb.	3.30	3.50
Cedarwood oil, cns., dms.	lb.	1.10	1.25
Celery seed oil	lb.	12.00	—
Celery seed, French, bgs.	lb.	.35	—
Indian, bgs.	lb.	.26	—
Cellulose acetate, flake, powd., bgs., t.l., dlvd E	lb.	.36	.51
Cellulose acetate butyrate, powd., 17% butyryl content, bgs., dlvd E	lb.	.545	.555
27% butyryl content, bgs dlvd, E	lb.	.595	.605
38% butyryl content, bgs., dlvd. E	lb.	.545	.555
38% butyryl content, half-second, bgs., dlvd. E.	lb.	.545	.555
50% butyryl content, bgs. dlvd. E	lb.	.585	.595
Cellulose gum, methyl (see Methyl Cellulose)			
Cellulose gum, pure, high vis., bgs., 23,000 lb lots or more works frt alld	lb	.57	—
bgs., smaller lots, same basis	lb.	.59	—
standard, low or medium vis., bgs c.l., t.l., frt. alld. E	lb	.57	—
bgs., ton lots, frt. alld. E	lb.	.59	—
(Cellulose gum prices 1c. per lb. higher in west.)			
Cerium hydrate 74% CeO. fib dms., 100-lb. lots or more	lb	1.40	—
77% CeO. fib dms. 100 lb lots or more	lb	1.74	—
Cerium oxalate (see Rare earth oxalate)			
Cerium oxide, optical grade, bgs., 50-lb lots or more, dlvd.	lb	1.85	1.90
bgs., smaller lots, dlvd.	lb	2.15	—
Cetyl alcohol NF fib cns., c.l., t.l., dlvd E	lb.	.41½	—
fib. cns., l.c.l., same basis	lb.	.43½	—
tanks, same basis	lb.	.39	—
Extra, cns., c.l., t.l., dlvd. E	lb.	.48½	—
fib. cns., l.c.l., same basis	lb.	.50½	—
tanks, same basis	lb.	.46	—
Chalk (see Calcium carbonate).			
Chamomile flowers, Hungarian,	lb.	.95	1.10
Roman, cs.	lb.	1.75	2.00
Chamomile oil, blue Hungarian, bots	lb.	350.00	—



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Charcoal activated NF, fib dms., c.l., works lb. .34 - —
fib. dms., 5-ton lots, works lb. .35 - .35½
fib dms. smaller lots, works lb. .36 - .59
Charcoal, black (see Charcoal, activated)
Charcoal, bone (see Bone black).
Charcoal hardwood, lump, bulk c.l., f.o.b. plant ton 55.00 - —
briquets, bulk, c.l., f.o.b. plant ton 80.00 - —
5-lb paper bgs., c.l., same basis ton 106.00 - —
20-lb paper bgs, c.l., f.o.b. plant, ton 90.00 - —
40-lb paper bgs c.l. same basis ton 86.00 —
Chenopodium oil, NF, cns lb. 4.70 - 4.90
Chicago acid paste bbls. frt. alld. lb 3.21 - —
Chinawood oil (see Tung oil).
Chloral tech. 94% min. dms., c.l., works lb .23 - —
dms., t.c.l., works lb .24 - —
tanks, multiple units, 5 cars, dms. t.c.l. works lb. .21 - —
Chloral hydrate USP jars, 1,000-lb lots lb 1.00 - —
jars 500-lb lots lb 1.03 - —
jars, 100-lb lots or less lb 1.05 - —
Chlordan agricultural dms., c.l., frt alld lb .65 - —
dms. t.c.l. 5,000-10,000-lb. lots, frt alld lb. .66 - —
clarified, dms., c.l., frt. alld lb. .69 - —
dms t.c.l. 5,000-10,000-lb. lots, frt alld lb .70 —
Chlorinated paraffin, 40%, dms., c.l., frt alld lb. .15 - —
dms. t.c.l. 10 dms or more, same basis lb. .16 - —
70% dms., c.l., same basis lb. 18½ - —
dms. t.c.l. 10 dms or more, same basis lb. 19½ - —
Chlorinated rubber, 5, 10, 20 cps., ctns. c.l. works lb .60 - —
ctns. t.c.l. works 2lb .61 - —
125 cps. ctns. c.l., works lb. .70 - —
300 cps. ctns. c.l., works lb. .80 - —
Chlorine, liq., cyls., c.l., works, frt equald lb. .11 —
cyls., t.c.l., Metropolitan area, same basis lb. .12½ - .13¾
tanks, single units works, frt equald 100 lbs 3.25 —
tanks, multiple units, 5 cars, works, frt. equald, same basis 100 lbs. 4.15 - —
tanks, multiple units, 4 cars, same basis 100 lbs. 4.35 - —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car same basis 100 lbs. 6.25 7.25
Chloroacetic acid mono, flake, 99%, purif. dms., c.l. lb. .23½ .25¼
dms. t.c.l. lb. 24½ —
Tech., flake, 96-97%, dms., c.l., frt. equald lb. .19 - —
dms. t.c.l. frt equald lb. .20 - —
2-Chloro-4-aminotoluene tech., liq., dms., frt alld lb 1.03 - —
4-Chloro-2-aminotoluene, fused, bbls. lb 1.38 - —
6-Chloro-2-aminotoluene, tech., liq., dms. frt alld lb. .66 - —
m-Chloroaniline dms. c.l., frt alld. lb. .75 - —
dms., t.c.l., same basis lb .77 - —
tanks, same basis lb .73 - —
o-Chloroaniline dms. c.l. frt. alld lb. .52 - —
dms., t.c.l., same basis lb .54 - —
tanks, same basis lb .50 - —
p-Chloroaniline dms. c.l., frt. alld. lb. .77 - —
dms., t.c.l. same basis lb. .79 - —
o-Chlorobenzaldehyde, dms., t.l., works lb 1.05 - —
dms., t.l., same basis lb 1.20 - —
p-Chlorobenzaldehyde, dms., t.c.l., works lb 1.95 - —
o-Chlorobenzoic acid, fib dms., t.l., works lb 1.10 - —
fib. dms., smaller lots, works lb 1.25 - —
p-Chlorobenzoic acid, fib dms., 2,000-lbs or more works lb 2.25 - —
fib. dms. less than 2,000-lbs., same basis lb 2.30 - —
Chloroform tech. dms. c.l. dlvd. E lb. .18 - —
dms., t.c.l. same basis lb. .19 - —
tanks same basis lb. .17 - —
USP, dms., c.l., dlvd lb. .27 - —
dms., t.c.l. dlvd lb. .30 - —
tanks minimum 4,000 gals dlvd. lb. .25 - —
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb. .90 - —
Powd., dlvd E., 100% basis lb. 1.00 - —
4-Chloro-2-nitroaniline, powd. dlvd. E lb. .86 - —
4-Chloro-2-nitrophenol, tech., paste, dms. frt alld lb. .75 - —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt alld lb. .99 - —
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .25 - —
o-Chlorophenol, dms. c.l., frt. equald lb .37 - —
dms t.c.l. same basis lb .38 - —
p-Chlorophenol dms., c.l., frt equald lb .37 - —
dms t.c.l. same basis lb. .38 - —
Chloropicrin, coml. cyls., 180 lbs., frt alld lb 1.07 - —
cyls., 100 lbs., same basis lb 1.08 - —
cyls., 50 lbs., same basis lb 1.14 - —
Chlorosulfonic acid dms. c.l., frt equald lb 0465- —
dms. t.c.l. frt equald lb 0515- —
tanks frt equald lb 0415- —
Chlorosulfonic acid, in stainless steel dms ½c per lb higher
o-Chlorotoluene tech. dms., t.l., works lb. .37 - —
dms. t.c.l., t.l. same basis lb .38 - —
Choline bitartrate, 100-lb dms., frt equald lb. 1.25 - —
Choline chloride, 100-lb dms. frt. equald lb 1.25 - —
Choline dihydrogen citrate, 100-lb. dms. frt equald lb. 1.25 - —
Chrome green CP, dark, light medium blue content, 1.15%, bbls dlvd E of Rockies, lb. .43 - —
blue content 16-30%, bbls., same basis lb. .44 - —
41-45%, bbls., same basis, lb. .44 - —
blue content 45-49%, bbls., same basis lb. .45 - —
reduced color 25%, bbls., same basis lb. .20 - —
Chrome green prices 1c higher W of Rockies
Chrome orange, CP, bbls., dlvd. E of Rockies lb. .35 - —
Chrome orange prices 1c higher W of Rockies.
Chrome yellow, CP, bbls., dlvd. E. of Rockies lb. .35 - —
Chrome yellow price 1c. higher W of Rockies.
Chromic acid, 99¾%, dms., c.l., works, frt. equald lb. .29½ - —
dms., t.c.l., dlvd. N. Y. Metropolitan area lb. .30 .31
Chromic acid, NF (see Chromium trioxide).
Chromium acetate, soln., 7½%, dms., 500-2,000-lb lots, works, lb. .10 - —
Chromium fluoride bbls., works lb. .51 - .52
Chromium oxide, hydrated, bbls., fib dms. c.l. frt alld. lb. 1.20 —
Pure, bgs., c.l., frt alld lb. 44½ - —
bgs. t.c.l., same basis lb. 45¼ - —
Chromium trioxide, NF, bots lb. 1.15 —
Cinchona bark, NF, red, broken, bgs lb .25 - —
NF yellow, broken, bgs lb .35 .40
Cinnamic acid, refd., bots lb. 2.50 3.50
Cinnamic alcohol, bots lb 1.50 1.60
Cinnamic aldehyde dms. lb .80 1.00
Cinnamon, Ceylon, No. 2, bgs. lb. .55 - —
Ceylon, No. "0000," bgs lb. .64 - —
Cinnamon bark oil, bots lb. 55.00 - 74.00
Cinnamon leaf oil, crude, dms lb 1.60 2.00
USP (Cassia), cns., dms lb 8.50 13.50
Citral, CP, bots lb. 4.65 - 5.55
Extra, bots lb. 5.00 - 7.25
Syn., dms. lb. 6.10 6.65
Citric acid USP anhyd., fine gran., bgs., dms., c.l. lb. .29½ .30
bgs. dms. 10,000-lb lots, 1 shipt lb. .30 .30½
bgs., dms. smaller lots lb. .30½ .31
USP, hydrous, fine gran., bgs., dms., c.l. lb. .27½ - .28½
bgs. dms., 10,000-lb lots 1 shipt lb. .28 .28½
bgs. dms. smaller lots lb. .29 .29½
Powdered citric acid ½c per lb higher
Citronella oil, Ceylon, dms lb. 1.05 —
Formosan, dms. lb. 1.15 - —
Citronellol bots, dms. lb 1.90 2.50
Synthetic, dms. lb 1.70 —
Civet, artif., bots oz 13.75 - 15.00
Nat bots oz 8.50 15.00
Clay, ball, dom. airfloated, bgs. c.l. Tenn ton 17.50 - 21.50
crushed shed moisture bulk, c.l., Tenn ton 8.00 - 11.25
imp. airfloated bgs. c.l. Atl port net-ton 43.00 47.00
lump bulk Atl port net-ton 31.50 - 37.50
Clay, China, dom. dry grd. air floated, 99%, 325 mesh, Georgia bgs., c.l. works ton 11.00 - 17.00
Georgia bgs. t.c.l. works ton 13.50 - 22.50
Imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me long-ton 23.00 - 35.00
white powd. bgs. c.l. ex dock net-ton 50.00 —
bgs. t.c.l. ex whse net-ton 60.00 - 70.00
Cleaner's naphtha, petroleum, 105°F Flash, tankcars New Jersey and New York gal. 18 —
Group 3 gal. 12@75 —
Houston, Texas gal. 145 —
140 F Flash, tankcars, New Jersey or New York gal. .205 —
Group 3 gal. 154 - —
Houston Texas gal. .17 —
Cleve's acid, tech., mixed, solid, dms., frt alld lb 1.05 - —
1.6 tech., solid dms frt alld lb 77 - —
1.7 tech., dms frt alld, lb 2.42 - —
Clove bud oil, USP, dms. lb. 2.55 - —
Cloves, Madagascar, bgs. lb. .38 - .38½
Zanzibar, bgs. lb. .39 - .42
Clove leaf oil, crude, dms lb. 1.10 —
CMC, crude, 96.4% low or medium vis, bgs., 23,000 lbs., dvld, E., 100% basis lb. .40 - —
96.4% low, or medium vis., bgs., less than 23,000 lbs., dlvd. E., 100% basis lb. .42 .46
65% low or medium vis. bgs., c.l., dlvd E., 100% basis lb. .40 —
t.c.l., dlvd E., 100% basis lb. .42 1.00
CMC, purif. high vis. (see Cellulose gum).
CMC prices W. of the Rockies are ½c. per lb higher and are on a dlvd basis.
Coaltar, crude, resale tot soln., tanks, works gal. .17 —
Refd., resale, indust. dms. c.l., ex whse gal. .35 - —
dms., t.c.l., ex whse gal .39 - —
tanks works gal 20½ - —
Coaltar pitch, aluminum, bulk, Works ton 42.00 - —
Carbon, bulk works ton 42.00 - —
Indust., bulk, works ton 44.00 - —
Core bulk works ton 40.50 —
Fiber bulk works ton 48.00 —
Roofing, 140-155 °F., Federal Specification RP 381 Type I tanks, works ton 41.00 - —
Cobalt acetate 25.4% Co. dms. dlvd E of Rockies lb .04 —
Cobalt blue, genuine, 25% lb basis, dlvd E of Rockies lb 4.90 - —
Cobalt blue prices 1c higher W of Rockies
Cobalt blue, imitation (see Ultramarine blue)
Cobalt carbonate 48% Co. powd., bgs. dlvd lb 1.45 - —
Cobalt chloride, 24.2% Co. dms. dlvd lb .93 - —
Cobalt hydrate, 60-61% Co., dms., dlvd lb 1.97 - —
Cobalt linoleate, fused 8½% Co., dms lb .71½ - —
Liq., 6% Co., dms lb. .44 - —
Cobalt metal, 98% dms. f.o.b carrier lb 1.50 —
Cobalt naphthenate liq. 6% Co., dms. dlvd lb .48¾ —
Cobalt nitrate 20.1% Co. bbls dlvd. lb .75 - —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd E of Mississippi R. lb 1.15 - —
70-71% Co kgs. same basis lb 1.12 —
Cobalt oxide prices W of Mississippi R 3c. per pound higher
Cobalt phosphate powd., 32.1% Co., dms. dlvd lb 1.35 —
Cobalt resinate, fused 3% Co. dms lb .38½ - —
Cobalt sulfate, cryst., 21% Co., dms., dlvd lb .64 - —
Monohydrated, 33% Co. dms., dlvd lb 1.09 - —
Cobalt tallate 6% Co., dms. dlvd lb .44 - —
Cocaine, USP cns., 100-oz lots, f.o.b works oz 17.50 - —
Cocaine hydrochloride, cns., 100-oz. lots f.o.b. works oz. 13.75 - —
Cocillana bark, bls. lb. .20 - .22
Cocoa butter, bgs. lb. .60 - .65
Coconut oil, crude, tanks, New York, lb. .12¼ - —
tanks, Pac. coast lb. .11 - .11½
refined, deod., dms lb. .18 - .19
Coconut acid, oil, dist. dms. lb. .21½ - .24
tanks lb. .19 - —
double dist. (stripped), dms. lb. 22½ - .25
tanks lb. .20 - —
Cod oil, dms., spot lb. .08¼ - .08¾
Codeine, NF, cns., 100-oz. lots oz. 13.25 - —
Codeine hydrochloride cns., 100-oz. lots oz. 11.75 - —
Codeine phosphate USP, cns., 100-oz lots oz. 10.25 - —
Codeine sulfate USP cns. 100-oz lots oz. 10.75 - —
Codliver oil, USP, dms gal 1.40 - 1.70
Cohosh root, black, bls lb 20 25
Blue, bls lb 20 25
Colchicine, USP, bots. 27.50 - 29.00
Colchicum root, bls lb .35 45
Colchicum seed, bgs. lb. .85 .90
Collodion, USP, dms. lb. .32½ - —
USP flexible, dms lb. .34 —
Colocynth pulp, bls lb. .75 —
Columbo root, bls lb. .16 .18
Condurango bark, bls lb 18 20
Congo copal gum, No. 1, bgs lb. .26 - .27
No. 2, bgs. lb. .30 - .35
No. 3, bgs. lb. .22 - .25
Copaiba balsam, cns., dms. lb. .85 - .95
Copaiba oil, cns lb. 1.35 2.00
Copper acetate, bbls, c.l., works, lb. .53 - —
bbls. t.c.l. works lb. .54 - —
Copper carbonate, 55%, dark dense, c.l., works lb. .3545- —
bgs., t.c.l., works lb. .3695- —
Copper chloride, cupric, anhyd., dms., works lb. .44½ - .45
cryst., dihydrate, dms., works, lb. .30¾ - .31¼
cryst., dried, dms., works lb. .38¾ - .39¼
cuprous, dms., works lb. .3995- .4295
Copper cyanide, tech., dms. 20,000-lb lots or more lb. .609 —
dms. 1,000 lb lots or more lb. .619 —
dms. smaller lots lb .639 .65
Copper gluconate, dms lb 3.20 —
Copper hydrate, dry, dms. c.l., frt. E of Miss lb. .52½ - —
dms., t.c.l., same basis lb. .53 - —
Copper metal, electrolytic, dlvd. Valley, basis lb. .31 - —
Copper naphthenate, liq., 8% Cu, dms, frt alld lb. .26½ - —
Copper nitrate, tech., cryst., dms., works lb. .30¾ .32¾
Copper oleate, solid, 8% Cu, dms., works lb. .45 —
Copper oxide, black, bbls, 100-5,000-lb. lots, works lb. .47 - —
red., 97%, USP, Type 1, bbls., 100-5,000 lbs. lots lb. .47½ - —
90% USP, Type II, bbls, 100-5,000-lb lots or more, works lb. .45½ - —
Copper quinolinolate, 18% Cu, dms., ton lots lb 4.25 - —
10% active quinolinolate, dms lb 1.14 1.15
Copper resinate, precip., dms., frt. alld lb. .47 - —
Copper sulfate, CP, gran., dms., works lb .1885- —
Cryst., 99%, bgs., c.l., works 100 lbs. 12.50 - —
bgs., t.c.l., works 100 lbs. 13.00 - 15.50
Monohydrated, 35%, dms., c.l., works 100 lbs. 23.35 - —
dms., t.c.l., works 100 lbs. 24.10 - —
Tribasic, distributors, 50-lb c.l., works 100 lbs. 28.60 - —
bgs., t.c.l., works 100 lbs. 30.10 - —
Copper undecylenate, dms lb 2.75 —
Copra, Atl., Gulf ports ton. 155.00 - —
Pac. coast, c.i.f ton. 150.00 - —
Coriander oil, USP, bots. lb. 5.75 - 6.25
Coriander seed, Moroccan, bgs. lb. .19 - —
Rumanian, bgs. lb. .14 - —
Yugoslavian, bgs lb .08½ - —
Corn oil, crude, tanks, works lb. .25 - —
Foots, (soapstock, 95% acid) tanks, New York lb. .05¾ - —
Refd., salad, dms. lb. .3023- .3050
tanks lb. .2823- —
Corn oil, acid, dms. lb. .16 - .18½
tanks lb. .13½ - —
Corn sugar, tanners, chipped, paper bgs. c.l. 60,000 lbs min. 100 lbs. 7.30 - —
paper bgs. t.c.l. 100 lbs 7.45 - —
Corn syrup, 43° Be., tanks, dlvd. N Y 100 lbs. 6.30 - —
non-ret. dms. c.l., same basis, 100 lbs. 7.23 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP, bots., kilo or more gram .85 - .90
Costus oil, bots oz. 6.00 —
Cottonseed meal, 41% bgs., Memphis, Tenn. 58.50 - 59.00
Cottonseed oil, crude, tanks, South, East lb. .12 - .12⅛
tanks, Valley lb. .11¾ - —
tanks, Tex., Waco lb. .11⅝ - —
Foots (soapstock, acid 95%), New York, tanks lb. .04¼ - —
Refd., salad, dms lb. .17¾ - .18
tanks lb. .15¾ - —
Cottonseed oil acids, dist., dms lb. .16 - .18½
tanks lb. .13½ - —
Coumarin, NF, cryst., dms. lb. 3.20 - 3.30
Cramp bark, NF, bls. lb. .90 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots, chys., lb. 3.05 3.26
Creosote, coaltar, crude, tanks, works, frt, adjusted gal. .24 - —
Crude, soln 80%, tanks, works, gal. .226 - —
Refd., dms., c.l., works gal. .50 - —
dms., t.c.l., same basis gal. .62 - —
tanks, same basis gal. .38 - —
West Coast creosote prices computed on a basis of 24c per gallon for straight oil and 20c per gallon for coaltar
Creosote, beechwood, chys, dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 - 1.77
Hardwood, NF, chys, dms, same basis lb. 1.42 1.47
Pinewood, dms, incl. c.l., works, lb. .0611- —
dms, incl., t.c.l., works lb. .0684- —
dms, incl., t.c.l. ex whse, New York lb. .0795- —
tanks, works lb. .0511- —
Creosote oil (see Creosote coaltar).
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret, dms. c.l., frt. alld lb. .16½ - —
non-ret dms. t.c.l., same basis lb. .17½ - —
tanks, same basis lb. .145 - —
USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret, dms., c.l., same lb. .18 - —
non-ret dms. t.c.l., same basis, lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98% dms., c.l., works, lb. .60 - —
dms., t.c.l., works lb. .61 - —
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald lb. .18 - —
dms., t.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
2.97% 2°C. dms., c.l., frt, equald, lb. .22 - —
dms., t.c.l., same basis lb. .23 - —
tanks same basis lb. .20 - —
o-Cresol 30.5°C m.p and over, ret., dms c.l., frt equald lb. .17 - —
ret. dms., t.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
30°-30.49°C m.p., dms., c.l., frt. equald lb. .16½ - —
ret. dms., t.c.l., same basis lb. .17½ - —
tanks, same basis lb. .14½ - —
29°-29.9°C, m.p., dms., c.l., frt. equald lb. .16 - —
ret. dms., t.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
25°-28°C m.p. dms. c.l., frt. equald lb. .15 - —
ret. dms. t.c.l. same basis lb. .16 - —
tanks same basis lb. .13 - —
p-Cresol, 98% dms., c.l., f.o.b., frt. alld. lb. .50 - —
dms., t.c.l., same basis lb. .52 - —
tanks, same basis lb. .45 - —
p-Cresyl methyl ether, cns lb. 1.80 2.05
Cresylic acid, coaltar, dom., metapara content above 25%, resins and tricresyl phosphate grades dms., c.l., t.l. frt equald gal. 1.35 - —
dms., t.c.l. same basis gal. 1.40 - —
tanks, same basis gal 1.15 - —
metapara content 25% or less, dms., c.l., t.l. same basis gal. 1.20 - —
dms., t.c.l. same basis gal. 1.25 - —
tanks, frt. equald gal. 1.00 - —
Imp., metapara content 25% or less, f.o.b works, frt. equald to competitive points, c.l. gal. 1.15 - —
t.c.l., f.o.b., works gal. 1.20 - —
tanks, same basis gal. 1.00 - —
Crotonaldehyde, 91-93% dms., t.c.l., works lb. .25 - —
Crotonic acid, 200-lb. dms., c.l., dlvd lb. .49 - —
dms., t.c.l., dlvd lb .51 - —
Cryolite, nat. indust., bgs., c.l., works 100 lbs. 13.00 - —
bgs. t.c.l. works 100 lbs. 14.25 - —
Cubeb oil, cns lb. 8.50 - 8.75
Cube root, powd., 5% rotenone, bgs., t.l., works lb 21 - —
bgs. t.l. works lb 22 - —
Cubeb berries, NF, bgs. lb 1.30 - —
Powd., cs. lb 1.45 - —
Cumene, dms. c.l., works lb .12 - —
dms., t.c.l. works lb .14 - —
tanks works lb .11 - —
Cumin seed, Iranian, bgs. lb. .18 - —
Turkish, bgs. lb .18 —
Cumin seed oil, bots. cns lb. 15.50 - 17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont. contract ton 57.00 - —
pulv., 21% N bgs., works, unit-ton 2.85 - —
Cyanamide, indust. grade, bgs., c.l., works ton 75.00 - —
bgs., t.c.l., works ton 96.00 - —
Indust grade 6-16 mesh, dms. c.l., works ton 120.00 - —
dms. t.c.l. works ton 140.00 - —
Cyclohexane, 99%, tech. dms. c.l., dlvd. E of Rockies gal 1.02 - —
dms. t.c.l. same basis gal. 1.10 - —
dms. c.l. dlvd W of Rockies gal. 77 - —
dms., t.c.l., same basis gal. 85 - —
tanks, works gal. 55 - —
98% tech 40-dm lots or more, f.o.b works gal. 56 - —
5-39 dms. same basis gal. 60 - —
tanks, same basis gal. 36 - —
Cyclohexanol tech., dms. c.l., works, frt. alld. E lb. .30½ - —
dms. t.c.l. works, same basis, lb. .31½ - —
tanks, works, same basis lb. .28 - —
Cyclohexanone tech. dms., c.l., works lb. .33½ - —
dms., t.c.l. works lb. 34½ - —
tanks, works lb. 31 - —
Cyclohexylamine tech., dms., c.l., works lb. .49 - —
dms., t.c.l., works lb. .50 - —
tanks, works lb. .47 - —
Cypress oil, bots. lb. 5.30 —

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2,4-D tech. bgs. dms., c.l., works, frt equald lb. .40 —
bgs. dms. t.c.l. same basis lb. .45 .49
2,4-D butyl ester dms. c.l. works. lb. .43 —
dms., t.c.l., same basis lb. .48 .52
tanks, same basis lb. .42 —
2,4-D isopropyl ester, dms., c.l., works lb. .43 —
dms., t.c.l., works lb. .48 .52
tanks, works lb. .42 —
Dammar gum, Batavia, A E, cs lb. No stocks.
East India, Batu, bold, bgs lb. .15½ .18
nubs and chips, bgs lb. .10 .11
black, bold, bgs lb. .16 .18
nubs and chips, bgs lb. .13 - .14½
unscraped bgs lb. .13 .14½
East India, pale, chips, bgs. lb. .16 - .18
pale nubs, bgs lb. 20¾ .24
Siam, cs lb. .31½ .34
Singapore, No. 1, bgs. lb. .38 .44
No. 2, bgs. lb. .29 .32
dust, bgs. lb. .18 .20
No. 3, bgs. lb. No stocks.
Dandelion root, bls lb. .35 .40
DDD, tech., flake, grd., fib dms., c.l., works lb. .45 .47
fib dms., t.c.l. works lb. .46 .48
DDT, flake or lump, bgs., c.l., dlvd lb. .17 - —
bgs. smaller lots, same basis, lb. .19 - —
fib. dms., c.l., same basis lb. .18 - —
fib dms., smaller lots, same basis lb. .21 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate)
i-Decanol, tech., dms., c.l., dlvd. E. lb. .41½ - —
dms., t.c.l., dlvd. E lb. .43½ - .44½
tanks, dlvd, E lb. .37½ - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .20½ - —
dms., t.c.l., dlvd lb. .22 - —
tanks, dlvd. lb. .18 - —
Perfume grade, bots. lb 1.00 2.00
Decyl alcohol, normal (see i-Decanol)
Deertongue leaves, bls. lb. .50 .60
Defluorinated phosphate, feed grade, 14% P, paper bgs., c.l., t.l., Tupelo, Miss ton 52.00 - —
18% P, paper bgs., c.l., Plant City, Fla ton 61.25 - —
paper bags, c.l., t.l., Port Arthur, Tex ton 65.75 - —
paper bgs., c.l., works, Wales Tenn ton 66.00 - —
19% P, paper bgs., c.l., t.l., works, Houston, Tex ton 69.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.

dispersing pigments in vinyl resin solutions?

read how

NATIONAL NADONE®

(CYCLOHEXANONE)

may cut your milling and solvent costs

If you're dispersing pigments in vinyl resin solutions on open mills, NADONE® (Cyclohexanone) may contribute worthwhile savings in both milling and overall raw-material costs.

Here's why.

NADONE (Cyclohexanone) is a powerful solvent for vinyl resins with the added advantages of a very slow evaporation rate (38 vs. ethyl ether = 1); high flash point (123.8°F), and low vapor pressure. Most important, it wets pigments thoroughly, speeds up milling with minimum solvent loss and adds low-cost solvent power to the system.

NADONE (Cyclohexanone) has the highest toluene dilution ratio (6.3) of any commercially-useable aliphatic solvent. You can, therefore, add a much larger percentage of low cost hydrocarbons in your final vehicle yet deliver a uniform vinyl dispersion with excellent working properties.

NADONE (Cyclohexanone) is recommended by principal vinyl resin producers. In these competitive days, you should double check what it can do to help reduce your vinyl dispersion costs. We'll be glad to furnish technical data, suggest starting formulas and supply a generous working sample. Phone our nearest office or use the convenient coupon below.

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E-6

NAME_____

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Degras common (15-17% free fatty acid), 400-lb dms lb. .12 - .14
Neutral (over 2% free fatty acid), 400 lb dms lb. 13 - —
Denatured alcohol, ethyl CD-18, CD-19, dms., c.l., dlvd. E. of Rockies gal. .69½ - —
dms., t.c.l. same basis gal. 74½ .80½
tanks dlvd same basis gal 53½ —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol ethyl, proprietary solvent dms., c.l., dlvd E of Rockies gal. 72 —
dms. t.c.l. same basis gal. 77 .83
tanks same basis gal 56
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol ethyl, SD1 dms., dlvd E of Rockies gal. 70½ —
dms. t.c.l. same basis gal. 75½ .81½
tanks. same basis gal. .54½ —
SD2B dms c.l dlvd E of Rockies gal .69 —
dms t.c.l. same basis gal. .74 - .80
tanks, same basis gal. .53 - —
SD3A dms c.l dlvd E of Rockies gal. .68 —
dms t.c.l same basis gal. 73 .79
tanks, same basis gal. .52 - —
SD23A, dms., c.l., dlvd. E. of Rockies gal. .70½ - —
dms. t.c.l. same basis gal. 75½ .81½
tanks same basis gal .54½ — —
SD23H dms c.l., dlvd. E. of Rockies gal. 71 —
dms. t.c.l same basis gal. 76 .82
tanks same basis gal. .55 —
SD29, dms., c.l., dlvd. E. of Rockies gal. .69½ - —
dms., t.c.l.. same basis gal. 74½ .80½
tanks, same basis gal. 53½ —
SD30. dms. c.l. dlvd. E of Rockies gal. .68 —
dms., t.c.l., same basis gal. 73 .79
tanks same basis gal. .52 —
SD35A, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., t.c.l., same basis gal. 76 .82
tanks same basis gal. .55 —
SD-40, dms., dlvd. E. of Rockies, gal. .70½ - —
dms., t.c.l. same basis gal. 75½ .81½
tanks, same basis gal. 54½ —
For anhyd. alcohol on above formulas prices are 7c per gal higher
West coast dlvd. prices are the same as eastern prices, except in Idaho Montana, Oregon, and Washington where a 5c differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms lb. 15.00 - 17.00
dl-Desoxyephedrine hydrochloride, dms lb 6.60 - —
Dextrin corn gum paper bgs., c.l., 100 lbs. 9.39 - —
paper bgs., l.c.l. 100 lbs. 9.54 - —
canary dark, paper bgs., c.l. 100 lbs. 9.23 - —
paper bgs., l.c.l 100 lbs. 9.38 - —
indust grade 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.13 - —
paper bgs., l.c.l 100 lbs. 9.28 - —
white paper bgs., c.l. 100 lbs. 8.97 - —
paper bgs. l.c.l 100 lbs. 9.12 —
Corn dextrin in cotton bgs 15c per 100 lbs higher
Dextrose anhyd. comi. bgs., c.l. 100 lbs 8.65 - —
bgs. l.c.l 100 lbs 8.80 - —
Anhyd. special, aluminum foil lined fib dms., 200-lb dms 100 lbs 14.70 - —
100-lb dms 160 lbs 15.20 - —
Hydrated, comi., bgs., c.l. ex ex whse 100 lbs. 7.45 - —
bgs. c.l. ex whse 100 lbs 7.60 - —
USP dms lb. .19¾ - —
Diacetone alcohol, acetone-free, dms. c.l., dlvd lb .15½ - —
dms., t.c.l. dlvd. lb. .17 - —
tanks dlvd lb .13 - —
Tech. dms. c.l. dlvd. lb. .15 - —
dms. t.c.l. dlvd lb. 16½ - —
tanks dlvd lb 12½ —
Diacetyl, flavor grade, bots lb 3.30 4.30
Di-sec-amyl phenol, dms., c.l., works lb .32 - —
dms., t.c.l. works lb .33 - —
tanks works lb .29½ - —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms. t.c.l. works lb .33 - —
tanks works lb .29½ - —
Diallylamine dms., c.l., dlvd. lb 98½ - —
dms. t.c.l., dlvd. lb 1.00 - —
tanks dlvd lb .96 - —
o-Dianisidine dry, tech., fib dms. lb 2.00 - —
Dibenzyl sebacate dms. c.l. works. lb .93 - —
dms., t.c.l., same basis lb. .93½ - .94
tanks same basis lb .91 —
Dibromobenzene, bgs., 500-lb lots, lb. .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd lb. .65 - —
t.t.l., dms. same basis lb .68 - —
Food grade c.l. t.l. dms., dlvd. lb .65 - —
dms. t.t.l. same basis lb .68 1.10
Tech., dms., c.l., t.l., dlvd. lb .57 - —
dms., t.c.l., same basis lb. .60 - —
tanks. same basis lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., dlvd E lb. .31½ - —
dms., t.c.l., t.t.l., dlvd. E lb. .33 - —
tanks, dlvd E lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., dlvd E lb. .31½ - —
dms., t.c.l., t.t.l., dlvd E lb .33 - —
tanks, dlvd E lb. .29 - —
Dibutyl phthalate, dms., c.l., dlvd. E lb. .29¼ - —
dms., t.c.l., same basis lb. .30¾ - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26¾ - —
tanktrucks, 1,000-1,999 gals. same basis lb. .26¾ - —
Dibutyl sebacate dms., c.l., works. lb. .67½ - —
dms., t.c.l., works lb. .68½ - —
tanks, works lb. .65½ - —
Dibutyl tartrate, dms., works, frt. alld lb. .65½ - —
Dibutylamine, dms c.l., dlvd lb .55½ - —
dms., t.c.l., same basis lb. .57 - —
tanks, same basis lb. .53 - —
Dicaprylphthalate dms., c.l., dlvd. lb. .26 - —
dms., t.c.l., dlvd. lb. .27½ - —
tanks, dlvd. lb. .23½ - —
Dicaprylsebacate dms., c.l., works. lb. .63 - —
dms. t.c.l., works lb. .63½ - .64
tanks, works lb. 61 - —
2,5-Dichloroaniline dms. works lb. 83 - —
3,4-Dichloroaniline tech., solid, tanks, frt alld lb. 73 - —

o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾ - —
dms. t.c.l., same basis lb .13¾ - —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., t.o.b., works, frt. alld. E lb. .12 - —
dms. 2,000 lbs or more same basis lb. .14½ - —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½ - —
dms., t.c.l., or t.t.l., works lb. .34 - —
tanks, works lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd E lb. 15½ - —
dms., t.c.l., t.t.l., same basis lb. .17 - —
tanks same basis lb. .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l. frt equald lb .65 - —
dms. t.c.l. same basis lb 75 - —
Dichloropentanes dist., dms., c.l., works lb .05 - —
dms., c.l., works lb .06 - —
tanks works lb .03 - —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine dms. c.l. works. lb. .54 - —
dms., t.c.l., works lb. .55 - —
tanks works lb. .52 - —
Dicyclohexyl phthalate, gran., fib. dms c.l. works frt alld. lb. .47½ - —
fib. dms., l.c.l., same basis lb. .49 - —
Dicyclopentadiene dms. c.l., t.o.b. works lb. .14½ - —
dms., t.c.l., same basis lb. .14¾ - —
tanks same basis lb. .12 - —
Didecyl phthalate dms. c.l. works. lb. .25½ - —
dms., l.c.l. same basis lb. .27 - —
tankcars tanktrucks, 2,000 gals. lb. .23 - —
tanktrucks 1,000-1,999 gals, same basis lb. .23½ - —
Dieldrin, dms., c.l. dlvd. lb. 1.85 - —
dms. t.c.l dlvd lb. 1.90 - —
Diethanolamine dms. c.l., dlvd E. lb. .27 - —
dms., t.c.l. same basis lb. .28½ - —
tanks same basis lb. .24½ - —
Diethanolamine lauryl sulfate, dms., c.l., frt alld lb. .27½ - —
dms., t.t.l. frt alld. lb. .28½ - —
tanks frt alld lb. .26½ - —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate dms. c.l. t.o.b. works lb. .47½ - —
dms., t.c.l., same basis lb. .48½ - —
tanks, same basis lb. .45 - —
Diethyl ethanolamines, dms., c.l., dlvd lb. .69½ - —
dms. t.c.l., dlvd. lb. 71 - —
tanks dlvd lb. .67 - —
Diethyl oxalate dms. c.l., t.o.b. works lb. .42½ - —
dms., t.c.l. same basis lb. .43½ - —
tanks same basis lb. .40 - —
Diethyl phthalate dms., c.l., dlvd. lb. .27¼ - —
dms., l.c.l., dlvd lb. .28¾ - —
tanktrucks 1,000-1,999 gals, same basis lb. .24¾ - —
tankcars, tanktrucks, 2,000-lb lots, same basis lb. .24½ - —
Diethyl sulfate, dms, c.l., frt. alld E. lb. .21 - —
dms., t.c.l., frt. alld. E lb. .22½ - —
tanks, frt alld. E lb. .18½ - —
Diethyl thiourea dms. c.l., t.l., works lb. 58 - —
dms. t.c.l. same basis lb. 59 - —
Diethyl toluamide, 90-95% meta isomer dms. c.l. t.l., works. lb 2.30 - —
5-44 dm lots works lb 2.35 - —
1-4 dm lots works lb 2.40 - —
N,N-Diethyl-m-toluidine tech., liq., tanks, frt alld lb. .83 - —
Diethylamine dms. c.l. dlvd & dms. t.c.l., same basis lb. .53½ - —
tanks same basis lb .49½ - —
N,N-Diethylaniline dms., c.l., frt. alld lb. .57 - —
dms., t.c.l., same basis lb .58 - —
tanks, same basis lb .55 - —
Diethylbenzene, 380 lb dms., c.l., t.l. frt alld., Zone 1 lb 17½ - —
t.o.b. Zone 2 lb .18½ - —
380-lb. dms., t.c.l., c.l., f.o.b. Zone 1 lb. .19½ - —
f.o.b warehouse points, Zone 2 lb. .20½ - —
tankcars, Zone 1 lb. .15 - —
Zone 2 lb .16 - —
Zone 1 is East of the Rockies Zone 2, West of the Rockies
Di-2-ethylhexyl adipate (see Di-octyl adipate).
Di-2-ethylhexyl phthalate (see Di-octyl phthalate).
Diethylene glycol dms. c.l. dlvd E. lb 17¾ - —
dms. t.c.l. same basis lb 19¼ - —
tanks same basis lb. 15¼ - —
Diethylene glycol diethyl ether, dms., c.l., works lb. .55 - —
dms., t.c.l., works lb. .55¾ - —
Diethylene glycol monobutyl ether, c.l., dms., frt. alld. E lb. .30¾ - —
dms., t.c.l., frt. alld. E lb. .32¼ - —
tanks, frt alld. E lb. .28¼ - —
Diethylene glycol monobutyl ether acetate, dms., c.l., works lb. .30¾ - —
dms., t.c.l., works lb. .31½ - —
tanks, works lb. .28¾ - —
Diethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .22½ - —
dms., t.c.l., dlvd. E lb 24 - —
tanks dlvd E lb 20 - —
Diethylene glycol monoethyl ether acetate dms., c.l., works. lb. .27¼ - —
dms. t.c.l., works lb. 28 - —
tanks works lb. .25¼ - —
Diethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., t.c.l., dlvd. E lb. .22½ - —
tanks dlvd E lb. .18½ - —
Diethylenetriamine dms., c.l., dlvd. E lb. .44 - —
dms., t.c.l. dlvd E lb. .45½ - —
tanks, dlvd E lb. 41½ - —
Diethylstilbesterol USP, bots. 10-kilo lots kilo 100.00 147.50
bots. 1-kilo lot kilo 110.00 152.50
Digitalis leaves USP dom. dms lb 1.25 —
Digitoxin, USP, bots gram 3.75 4.20
Diglycol laurate dms., ton lots lb. .32½ - —
Diglycol stearate, dms, t.l lb. .26 - —
Diglycolic acid bgs. c.l. t.l., works. lb. .15½ - —
bgs. t.c.l. works lb. .16 - —
Dihexyl sebacate dms. c.l., works. lb. 66 - —
dms., t.c.l., works lb. 67 - —
tanks, works lb. 64 - —
Dihydrazine sulfate, dms., works lb. 1.10 1.25
Dihydrostreptomycin sulfate, bulk, gram, .028 - .03
1,2-Dihydroxy anthraquinone, dms., works lb 3.45 - —
2,2-Dihydroxy-5-5-dichloro diphenyl methane, pure, dms lb 2.55 - —
Fech. dms., 20,000 lbs or more lb 1.11 - —
dms. 1,050 lbs to 20,000 lbs. lb 1.13 - —
dms. 150 lbs to 1,050 lbs lb 1.15 - —

Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 - —
dms., t.c.l., dlvd. lb. .18½ - —
tanks, dlvd lb. .14½ - —
Di-isobutyl phthalate, dms., c.l., dlvd. E. lb. .28 - —
dms., t.c.l., same basis lb. .29½ - —
tanks, same basis lb. .25½ - —
Di-isobutylene dms. c.l., dlvd. E lb. .10 - —
dms., t.c.l., dlvd. E lb. .11½ - —
tanks, dlvd E. lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., works lb. .25 - —
dms., t.c.l., same basis lb. .26½ - —
tanktrucks, 1,000-1,999 gals., works lb. .23 - —
tankcars, tanktrucks, 2,000 gals., works lb. .22½ - —
Di-iso-octyl sebacate, dms., c.l., works lb .62 - —
dms., t.c.l., works lb. .61¼ - —
tanks, works lb. .60 - —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼ - —
dms., t.c.l., same basis lb. .24¾ - —
tanks, same basis lb. .20¾ - —
Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb. .50½ - —
dms., t.c.l., same basis lb. .52 - —
tanks, same basis lb. .48 - —
Dillweed oil, dom., bots., dms. lb. 4.00 - —
Dimethyl anthranilate, cns. lb. 4.15 - —
Dimethyl dichlorovinyl phosphate, 55-gal dms., dlvd lb. 3.50 - —
Dimethyl ethanolamine, anhyd., dms., c.l., dlvd. E lb. .78 - —
dms., t.c.l., dlvd. E lb. .79½ - —
tanks, dlvd. E lb. .75½ - —
Dimethyl ethanolamine, 70% dms., c.l., dlvd., 100% basis, contained amines lb. .78 - —
dms., t.c.l., dlvd. 100% basis. lb. .79½ - —
tanks, dlvd., 100% basis lb. .75½ - —
Dimethyl hydroquinone, dms. lb. 1.90 2.20
Dimethyl phthalate, dms., c.l., works lb. .26¾ - —
dms., t.c.l., works lb. .27¼ - —
tanktrucks, 1,000-1,999 gals., same basis lb. .24¾ - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .24¼ - —
Dimethyl sebacate, dms., c.l., works. lb. 1.30 - —
dms., t.c.l., works lb. 1.30½ - 1.31
tanks, works lb. 1.28 —
Dimethyl sulfate, ret. dms., c.l., works lb. .17½ - —
ret. dms., t.c.l., works lb. .18½ - —
tanks, works lb. .16½ - —
Dimethyl sulfide, dms., c.l., works. lb. .17½ - —
dms., t.c.l., works lb. .18½ - .19½
tanks, works lb. .15 - —
Dimethyl sulfoxide, dms., c.l., f.o.b. works lb. .35 - —
dms., t.c.l., same basis lb. .37 - .38
tanks, same basis lb. .33 - —
Dimethylamine 25% soln., dms., c.l., frt. equald. 100% basis lb. .38 —
dms. t.c.l. frt equald. 100% basis lb. .38½ - —
tanks, frt. equald, 100% basis lb. .28 - —
40% soln., dms., c.l., frt. equald., 100% basis lb. .35 - —
dms., t.c.l., frt. equald. 100% basis lb. .35½ - —
tanks, frt. equald., 100% basis lb. .28 - —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 - —
dms., t.c.l., same basis lb. .29 - —
tanks, same basis lb. .26 - —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½ - —
dms., t.c.l., works lb. .33 - .34
tanks, works lb. .30 - —
2,4-Dinitroaniline, dms., frt. alld lb. .75 - —
Dinitroaniline orange toner, CP, bbls. dlvd E. of Rockies. lb. 1.61 - —
Dinitroaniline orange toner prices 1c. higher W. of Rockies
m-Dinitrobenzene 89°C., dms. lb. .26 —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C. dms., c.l., frt. alld E lb. .17¼ - —
dms., t.c.l. frt alld E. lb. .17¾ - —
tanks frt alld. E. lb. .17 - —
2,4-Dinitrophenol bbls. lb. .41 - —
2,4-Dinitrotoluene, oil, dms. lb. .11 - —
Refd. 63°C. dms lb. .23 - —
Dioctyl adipate, dms., c.l., works. lb. .37½ - —
dms., t.c.l., works lb. .39 - —
tanks, works lb. .35 - —
Dioctyl phthalate, dms., c.l., frt. alld. E lb. .25 - —
dms., t.c.l., frt. alld. E lb. .26½ - —
tanktrucks, 1,000-1,999 gals., same basis lb. .23 - —
tankcars tanktrucks, 2,000 gals., same basis lb. .22½ - —
Dioctyl phthalate prices ¾c. higher in West.
Dioctyl sebacate dms., c.l., works. lb. .59 - —
dms., t.c.l., works lb. .59½ - .60
tanks, works, dlvd lb. .57 - —
1,4-Dioxane, dms., c.l., frt. alld. E. lb. .31½ - —
dms., t.c.l., frt. alld. E lb. .33 - —
tanks, frt. alld. E lb. .29 - —
Prices in the west are 2c. per lb. higher.
Dipentaerythritol bgs. c.l. t.l., dlvd. E lb. .34 - —
bgs., t.c.l., t.t.l., dlvd E lb. .35 - —
Dipentene, dest.-dist. dms., c.l., works gal. .58 - —
dms. t.c.l. works lb. .62 - —
dms., t.c.l. ex whse. gal. .78 - —
tankscars, works gal. .41 - —
Dipentane, steam dist., dms., c.l., works South gal. .72 - —
dms., t.c.l., dlvd. New York gal. .91 - —
tanks, works, South lb. .55 - —
Dip oil (see Tar acid oil).
Diphenolic acid 1,000-lb or more, bgs., works lb. .75 - —
Diphenolic polyether acids, 1,000-lb. or more, bgs., works lb. 1.00 - —
Diphenyl, bgs., c.l. t.l., works lb. .16¾ - —
bgs., l.c.l., works lb. .18½ - —
tanks, works lb. .15¾ - —
Diphenyl oxide perfume grade, cns. lb. .55 - .70
Diphenyl phthalate dms., c.l., works. lb. .51 - —
dms., t.c.l., works lb. .53 - —
Diphenylamine, refd. flake, bgs., c.l., works frt. equald lb. .32 —
bgs. t.c.l., same basis lb. .34 —
Refd., fused, tanks same basis lb. .29 - —
Refd. diphenylamine in dms., ½c per lb higher
Diphenylguanadine bgs., dms., ton lots, frt. alld lb. .51 - —
bgs., smaller lots, frt. alld lb. .52 - —
Diphenylhydantoin-sodium, USP, dms lb. 5.00 5.60
Dipropylene glycol dms., c.l., frt. alld lb. .17 - —
dms. t.c.l. frt alld. lb. .18½ - —
tanks, frt alld lb .14¼ - —
Dipropylene glycol prices 1c. higher in West.

Dipropylene glycol methyl ether, dms., c.l., dlvd. E lb. .20 - —
dms., t.c.l., same basis lb. .21¼ - —
tanks, same basis lb. .18½ - —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.80 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld lb. .71 - —
dms., smaller lots, frt. alld lb. .72 - —
Di-o-tolylthiourea, tech. solid, dms., c.l. t.l., frt alld lb. .55 - —
Divinylbenzene, 20-25% dms., c.l., works, frt equald lb. .20 - —
dms., t.c.l., same basis lb. .21 - —
tanks, same basis lb. .19 - —
50-60% dms. c.l., works, 100% basis lb. 1.00 - —
dms., t.c.l., works, 100% basis. lb. 1.05 - —
tanks, same basis lb. .90 - —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E lb. .50 - —
dms, t.c.l., t.t.l., same basis lb. .52 - —
Dodecylbenzene, dms., c.l., t.o.b., works, frt equald lb. .134 - —
dms., t.c.l. same basis lb. .144 - —
tanks, same basis lb. .11 - —
Dodecylphenol c.l., frt. alld. lb. .22½ - —
dms., l.c.l., same basis lb. .23½ - —
tanks same basis lb. .20 —
Dodecylphenol prices on shipments to Western States are 2c per pound higher.
Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 25-lb.lots, frt. prepaid or alld.
Blue, FD&C, No. 1 lb.15.65 - 16.45
No. 2 lb.15.65 - 16.45
Green, FD&C, No. 1 lb.15.65 - 16.45
No. 2 lb.19.60 - 20.40
No. 3 lb.31.30 - 32.10
Red, FD&C, No. 2 lb. 3.60 - 4.40
No. 3 lb.19.60 - 20.40
No. 4 lb. 6.00 - 6.80
Yellow, FD&C, No. 5 lb. 3.75 - 4.55
No. 6 lb. 3.65 - 4.45
Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb and 1-lb. lots, dlvd.:
Black, D&C, No. 1 lb.12.40 - 13.00
Brown, D&C, No. 1 lb.16.35 - 16.95
Green, D&C, No. 5 lb.17.00 - 17.60
No. 6 lb.17.40 - 18.00
No. 7 lb.14.35 - 14.95
Orange, D&C, No. 3 lb.10.50 - 10.95
No 4 lb.19.60 - 20.05
No 5 lb 3.80 4.25
Red, D&C, No. 17 lb.12.55 - 13.15
No. 18 lb.23.55 - 24.15
No 19 lb.15.00 - 15.45
No. 21 lb 3.90 4.35
No. 22 lb.10.50 - 10.95
No. 28 lb.27.90 - 28.50
No 33 lb.17.00 - 17.45
Violet, D&C, No. 2 lb.15.65 - 16.10
Yellow, D&C, No. 7 lb.10.50 - 10.95
No. 8 lb.0.50 - 10.95
No. 10 lb.15.10 - 15.70
No. 11 lb.14.80 - 15.40
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb and 1-lb. lots, dlvd.:
Blue, Ext., D&C, No. 1 lb.15.65 - 16.10
Green, Ext., D&C, No. 1 lb.15.65 - 16.10
Red, Ext., D&C, No. 1 lb.13.05 - 13.50
Yellow, Ext. D&C, No. 1 lb.10.50 - 10.95
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd No.
11110 Brilliant scarlet BN lb 1.79 - —
13390 Fast blue SR lb. 1.57 - —
14025 Yellow 2G lb. 1.32 - —
14030 Orange R extra, conc. lb 1.64 - —
14645 Chrome black I' lb 77 - —
14720 Rubine XX, conc lb. 1.76 - —
15510 Orange Y, extra conc. lb. 83 - —
15575 Orange RR. lb. 1.10 - —
15620 Fast Red A, conc. lb. 1.77 - —
15705 Chrome blue black R, conc. lb. 1.12 - —
16150 Scarlet 2RL lb. 1.22 - —
16255 Brilliant scarlet 3RN, conc. lb. 1.34 - —
16230 Fast light, orange 2G lb. 1.39 - —
17590 Brown FG lb 3.00 - —
18050 Phloxine 2G lb. 1.16 - —
18055 Fuchsine 6B lb. 1.55 - —
18965 Fast yellow 2G lb. 2.44 - —
19140 Yellow XX lb 2.48 - —
19555 Yellow NN, conc. lb 3.67 - —
20170 Brown V lb 1.53 - —
20470 Blue black, extra, conc lb 1.44 - —
21010 Brown, RX, conc lb. 1.42 - —
22240 Scarlet B lb. 2.81 - —
22310 Red FC lb. 1.57 - —
22311 Brown MCW lb. 1.59 - —
22610 Blue 2B, extra conc. lb. 1.62 - —
23500 Red 4BX, conc. lb. 1.80 - —
24410 Sky blue FF extra conc. lb. 1.95 - —
24895 Brilliant yellow conc lb. 3.27 - —
26360 Navy blue 3R, conc lb. 1.84 - —
26695 Black F, conc. lb. 2.30 - —
26900 Milling Red 3R, conc lb 2.24 - —
27075 Neutral black 2B, conc. lb. 2.75 - —
27720 Gray L. lb. 2.29 - —
29185 Fast scarlet 4BNC lb 2.23 - —
50015 Diazo black VJ conc. lb 2.48 - —
30045 Yellow brown K, extra lb. 1.45 - —
30235 Black EB, 200% lb. 1.33 - —
30295 Green BY conc. lb. 1.07 - —
35660 Brown B lb. 2.89 - —
37565 Naphthol SWF lb 1.85 - —
40000 Yellow 2G lb. 1.44 - —
41000 Yellow OX lb. 2.45 - —
42000 Green V crystals lb. 2.73 - —
42040 Brilliant green G crystals lb 3.62 - —
42640 Violet 4BXN lb 2.43 - —
42090 Blue EG lb 1.85 - —
42100 Milling green 6B conc. lb 4.78 - —
42530 Brilliant blue BBG lb 2.44 - —
44045 Blue B, extra conc. lb. 3.61 - —
45170 Red BX lb 4.76 - —
50415 Nigrosine SSJ lb. 1.03 - —
52015 Blue GXX lb 2.54 - —
58005 Alizarin red SC lb 3.64 - —
59700 Golden orange GFD, single paste lb 2.70 - —
59710 Flaming orange 6RD double powder lb 4.90 - —
59800 Dark blue BO, single paste. lb. 2.28 - —
59825 Jade green NC, supra, double paste lb 1.75 - —
61570 Alizarin green CG, extra lb. 4.00 - —
63010 Alizarin blue SAPG lb 3.90 - —
63615 Alizarin blue black B lb 3.26 - —
69825 Blue BLFD double paste lb 2.76 - —
70805 Brown BB single paste lb 2.03 - —
Dyes, coaltar, oil-soluble 100 lb drums, dlvd. No
12140 Oil scarlet BL lb. 1.87 - —
12055 Oil orange 7078 V lb. 1.38 - —
26120 Oil red N 1700 lb. 1.94 - —
42535B Methyl violet base lb. 1.83 - —
44045B Victoria blue base lb. 4.06 - —
50415B Oil black 8603 lb. .80 - —
61565 Alizarin cyanine green base. lb. 6.13 - —
Dyes, coaltar, spirit soluble, 100 lb. dms., dlvd., Black RB lb. 3.89 - —
Spirit brown GN lb 5.30 - —
Spirit orange R conc. lb 5.87 - —
Spirit red B conc. lb 6.41 - —
Pr 517 Spirit yellow 2R conc lb 4.62 - —
Pr 554 Spirit blue THN lb 5.06 - —

E

Echinacea root, bls. lb. 1.25 - —
Elm bark, grinding, bls. lb. .30 - .32
Powd., bbls., bxs. lb. .60 - —
Select, bundles lb. .75 - —
Emetine hydrochloride, USP, bots oz.48.40 - —

Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd. lb. 2.77 - —
Eosin red toner, bbls., works lb. 1.95 - —
Ephedrine, syn., USP, anhyd., bots. 100-oz.lots oz. .98 - 1.00
hydrous, bots., 100-oz. lots, oz. .92 - —
Ephedrine hydrochloride, NF, dms., 100-oz., f.o.b. works oz. .75 - —
Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b. works oz. .73 - —
USP, powd., dms., 100-oz., same basis oz. .73 - —
Epichlorohydrin, dms., c.l., dlvd. lb. .29½ - —
dms., l.c.l., dlvd. lb. .31 - —
tanks, dlvd. lb. .27 - —
Epinephrine base, syn., USP, bots., 100 gram. lots gram. .58 - —
Epsom salt (see Magnesium sulfate).
Erigeron oil, cns. lb. 11.00 - —
Ergot, NF, dms., tin-lined lb. 2.00 - 2.50
Eserine salicylate, bots. oz. 34.50 - 40.00
Eserine sulfate, bots. oz. 26.00 - —
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va lb. .18½ - —
Ester gum, wood-rosin type, dms., c.l. same basis lb. .18½ - —
Ether (see specific product)
Ethyl acetate, nat., ferment, 85-88%, dms. c.l. dlvd lb .15 —
dms. l.c.l., dlvd lb .16½ —
tanks dlvd lb .12½ —
95-98% dms. c.l., dlvd lb .15¼ —
dms. l.c.l., dlvd lb 16¾ —
tanks dlvd lb 12¾ —
99%, dms., c.l., dlvd lb. .15½ —
dms. l.c.l., dlvd lb .17 —
tanks, dlvd lb .13 —
Syn., 85-88%, dms., c.l., dlvd. lb. .15 - —
dms., l.c.l., dlvd lb. .16½ —
tanks, dlvd lb. 12½ —
95-98%, dms., c.l., dlvd. lb. .15¼ —
dms. l.c.l., dlvd lb .16¾ —
tanks dlvd lb .12¾ —
99%, dms., c.l., dlvd. lb. .15½ —
dms., l.c.l., dlvd. lb .17 —
tanks dlvd lb .13 —
Ethyl acetoacetate, dms., c.l., dlvd. lb. 58½ —
dms., l.c.l., dlvd. lb. .60 —
tanks, dlvd lb. .56 —
Ethyl acrylate, dms., c.l., t.l., dlvd. lb. .34¾ —
dms., l.t.l., dlvd lb. .35¾ —
tanks, dlvd. lb. .32¼ —
Ethyl alcohol, 190 pf., USP, tax paid dms c.l., dlvd. E of Rockies gal. 20.63 —
dms. l.c.l. same basis gal. 20 73 -20.84
USP, tax-free, dms., c.l., dlvd. E. of Rockies gal. .68 - —
Ethyl alcohol, 190 pf., USP, tax free, dms., l.c.l., same basis gal. .78 .89
tanks, same basis gal .52 —
Ethyl alcohol, absolute 200 pf., tax paid dms. dlvd E of Rockies gal. 21 75 —
dms., l.c.l., same basis gal. 21 85 -21.90
tanks, same basis gal. 21 59 —
Ethyl alcohol denatured (see Denatured alcohol ethyl)
Ethyl aminobenzoate USP (see Benzocaine).
Ethyl amyl ketone dms. c.l. dlvd. lb. .40 —
dms. l.c.l. same basis lb. 21½ —
tanks same basis lb. 17½ —
Ethyl benzoate bots. lb. .75 1.00
Ethy bromide tech., 98%, dms., c.l., frt. alld. E lb. 43 - —
dms. l.c.l. frt. alld E lb. 45 - —
tanks, frt. alld. E lb. .40 - —
2-Ethyl butyl alcohol, dms., c.l., works lb. .30 —
dms., l.c.l., works lb. .30¾ —
tanks, works lb. .28 - —
Ethyl butyl ketone, dms., c.l., t.l., works lb. .36 - —
dms. l.c.l., t.l. works lb. 36¾ —
tanks, works lb. 34 —
Ethyl butyrate dms., works lb. .85 1.00
Ethyl carbamate (see Urethane)
Ethyl cellulose, vis. 4 cps., ngs., 5,000 lb lots or more, frt. alld. E lb. .73 - —
bgs., smaller lots frt alld E lb. .75 - —
vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E lb. .68 - —
Ethyl cellulose, vis., 10,20,50,100,150 cps., bgs., smaller lots, frt. alld. E lb. .70 - —
Ethyl chloride tech. cyls., works. lb. .20 22
dms., works lb. 18 20
tanks works lb. 10 —
Ethyl cinnamate, cns lb. 3.35 - 3.50
Ethyl ethanolamines, mixed, dms., c.l., dlvd. E lb. .43½ - —
dms., l.c.l. dlvd. E lb. .44½ - —
tanks, dlvd E lb. 41½ - —
Ethyl ether, absolute, ACS, dms lb. .27 —
Anesthesia USP dealers, 1-lb. cns lb. 1.01 - —
½-lb cns lb. 1.09 - —
¼-lb cns. lb. 1.21 - —
Indust., dms. c.l., dlvd. lb. .13½ - —
dms., l.c.l., dlvd. E lb. .15 - —
tanks dlvd E lb. .11 - —
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E lb. .37 - —
dms., l.c.l., t.l.l. dlvd. E lb. .38½ - —
tanks, dlvd E. lb. 34½ - —
2-Ethyl hexoic acid 1c. higher W. of Rockies.
2-Ethylhexyl acrylate, dms., c.l. t.l., straight or mixed frt. alld. E lb. .39½ - —
dms., l.t.l., same basis lb. .40½ - —
tanks, same basis lb. .37 - —
2-Ethylhexyl alcohol, dms., c.l., dlvd. E lb. .20½ - —
dms., l.c.l., dlvd. E lb. .22 - —
tanks, dlvd. E lb. .18 - —
Ethyl iodide chys. works lb. 3.30 - —
Ethyl methacrylate dms., c.l., frt. equald lb. .52 —
dms., t.l.l. frt equald lb. .52½ —
tanks, frt. equald lb. 50 —
Ethyl morphine hydrochloride, USP, bots oz. 11.85 —
Ethyl oenanthate dms lb 1.05 1.30
Ethyl oxalate (see Diethyl oxalate)
Ethyl silicate dist (see Tetraethyl orthosilicate).
Ethyl silicate 40% available SiO, dms., c.l., dlvd. E lb. .49 - —
dms., l.c.l., dlvd. E lb. .50½ - —
tanks, dlvd. E lb. .47 - —
N-Ethyl-a-naphthylamine, dms. works, lb. 1.04 - —
N-Ethyl-m-toluidine, tech., liq., tanks frt. alld lb. 83 - —
N-Ethyl-o-toluidine, bbls lb. 88 - —
Ethylamine (see Mono-, Di- or Tri-)
N-Ethylaniline dms. c.l., frt. alld. lb. .57 - —
dms., l.c.l. frt. alld lb. .58 - —
tanks, frt. alld lb. .55 - —
Ethylbenzene 99% dms., c.l., t.l., frt. equald lb. .14 - —
dms., l.c.l., same basis lb. .16 - —
tanks, same basis lb. .11½ - —
Ethylene, contract refy gate lb. .0473 - .052
Ethylene dibromide dms., c.l., frt. equald lb. .30½ - —
dms., l.c.l. frt. equald lb. .31½ - —
tanks, frt. equald lb. .28½ - —
Ethylene dichloride dms., c.l., dlvd. lb. .11½ - —
dms., l.c.l., same basis lb. .13 - —
tanks, same basis lb. 09 - —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.

Ethylene glycol, indust., dms., c.l., dlvd E lb. .16 - —
dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. .13½ - —
Ethylene glycol monobutyl ether, dms. c.l., dlvd E lb. .22 —
dms., l.c.l., dlvd E lb. .23½ - —
tanks, dlvd E lb. .19½ - —
Ethylene glycol monoethyl ether, dms. c.l., dlvd. E lb. .21 —
dms., l.c.l., dlvd E lb. .22½ - —
tanks, dlvd E lb. .18½ - —
Ethylene glycol monoethyl ether acetate dms., c.l. dlvd. E lb. .19½ - —
dms., l.c.l., dlvd. E lb. .21 - —
tanks, dlvd. E lb. .17 - —
Ethylene glycol monomethyl ether, dms c.l., dlvd. E lb. .21 - —
dms., l.c.l. dlvd E lb. .22½ - —
tanks, dlvd E lb. .18½ - —
Ethylene glycol monomethyl ether acetate, dms., c.l., works lb. .29 - —
dms., l.c.l., works lb. .29¾ - —
tanks, works lb. .27 - —
Ethylene glycol monostearate, flake, 150-lb ctn lb. .33 - —
Ethylene oxide dms. c.l. dlvd E. lb. .21½ —
dms., l.c.l. dlvd E lb. .24½ —
tanks dlvd E lb. .15½ —
Ethylene trichloride (see Trichloroethylene)
Ethylenediamine 85-88%, dms., c.l., dlvd. E., 100% basis lb. .40 - —
dms l.c.l. dlvd E. 100% basis, lb. .41½ - —
tanks, dlvd. E., 100% basis lb. .38 - —
Ethylvanillin, 100-lb. fib. dms., 500-lb. 6.75 - —
less than 500-lb. lb. 7.40 - —
Eucalyptol USP cns. dms lb 85 1.40
Eucalyptus oil NF rectified, 70 75% dms lb. .45 —
NF rectified, 80-85% dms lb. 53 .62
USP, dms. lb. 1.90 - —
Euphorbia herb, bls lb. .12 .15

F

F salt paste, tech., dms., works lb 2.50 —
Fennel oil sweet, USP cns. lb 2.60 —
Fennel seed, Argentine, bgs lb .17½ - —
French, light, bgs. lb. .16½ - —
Indian, light, bgs. lb. .16½ - —
Yugoslav, light, bgs. lb. .17½ - —
Fenugreek seed, Moroccan, bgs. lb. .12 - —
Ferric chloride, anhyd., tech. 350-lb. dms., c.l., works 100 lbs 8.00 - —
dms., l.c.l., works 100 lbs 9.00 - —
Indust., cryst., bbls., c.l., works, 100 lbs. 5.25 6.75
bbls. l.c.l. works 100 lbs 5 75 7 25
Ferric chloride 42° Be., photo grade, cbys., c.l. works 100 lbs. 7.25 8.25
sewage grade, tanks, frt equald 100% basis 100 lbs 4.00 —
USP cryst dms t.l works lb 08½ - —
Ferric citrate, gran. dms lb .86 - —
Ferric hypophosphite NF 175-lb. dm lb. 4.25 - —
Ferric naphthenate liq., 6% Fe. dms. frt alld lb. .28¼ - —
Ferric oxalate, tech. gran. 50-lb. dm., f.o.b. works E lb. 1.30 - —
Ferric oxides (see iron oxides)
Ferric phosphate NF, soluble, gran pearls cs lb 72 75
Ferric pyrophosphate NF VII soluble, gran pearls, 225-lb dm. lb. 79 - —
Ferric resinate dms. ton lots, frt. alld lb. .45 - —
Ferric stearate dms. c.l. frt allot. ty. .39 —
dms. t.c.l. frt alld lb. 40 44
Ferric sulfate partly hydrated, bgs. c.l., works ton 35.25 —
bgs., t.c.l. works ton 36.25 -42.25
bulk, c.l., works ton 33.25 —
Ferric-amonium citrate, NF, brown, gran., 100-lb. dms lb. .68 - —
NF, green, gran., 100-lb. dms., frt. equald lb. .68 - —
Ferric-ammonium oxalate, fine gran., dms lb. .27½ - .29½
Ferric-potassium oxalate, fine gran., 250-lb dm., f.o.b. works lb. .32½ - —
Ferric-sodium oxalate fine gran., dms lb. .27½ - .29½
Ferrous gluconate USP, 200-lb dm., frt. equald lb. .96 - —
Ferrous sulfate gran. bgs., c.l., works ton 34.50 —
bgs., t.c.l., dlvd Metropolitan area 100 lbs 3.35 4.25
bbls., c.l., works ton 40.00 —
bulk, c.l., works ton 27.00 —
USP cryst., bbls., dms lb 09½ .10
Fir balsam, Canada, bbls gal 34.00 35.00
Oregon bbls gal 3.40 4.64
Fir oil, Canada, cns lb. 1.70 1.75
Fish oil, refd., alkali, dms lb. .1380 - .1430
Kettle-bodied, dms. lb. .1530 - .1580
Light-pressed, dms. lb. .1280 - .1330
tanks lb. .1080 - —
Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram dms 1,000,000 units. .12 - —
Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts ton. 118.00 -120.00
Fishscrap, dom., menhaden, dried, 60% protein, grd. bgs., Atlantic and Gulf coasts, ton. 114.00 -116.00
Fleaseed (see Psyllium seed)
Folic acid, USP, nots fib dms., kilo lots or more gram. .25 - —
10% feed grade fib dms. 5 kilos or more kilo 30.00 44.00
Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd lb. .0690 - —
tanks, dlvd. lb. .0430 - —
37% (inhibited, 7% methanol) tanks, dlvd lb. .0405 - —
44% (1% methanol), tanks lb. .0446 - —
37%, methanol-free (uninhibited), tanks, dlvd lb. .0375 - —
Formic acid 85% cbys. c.l., works. lb. .1570 - —
cbys., t.c.l., works lb. .1620 - .1720
90%, cbys., c.l., works lb. .1625 - —
cbys., t.c.l., works lb. .1675 - .1775
Fringetree bark, bls lb. .65 .70
Fumaric acid, tech. 250-lb. dms., c.l., frt. equald lb. 23¼ - —
dms., t.c.l., frt equald lb. 24¾ - —
Fumaric acid in bags ½c. per lb. less.
Furfural dms. c.l. works lb. .13 - —
dms. t.c.l., works lb. .14 - —
tanks, dlvd. E lb. .11½ - —
tanks, dlvd. W lb. .12½ - —
Furfuryl alcohol, cns., works lb. .28 - —
dms., c.l., t.l., Newark, N. J lb. .19½ - —
dms., l.c.l., t.l.l., Newark, N. J lb. .20½ - —
dms., c.l., t.l., Memphis, Tenn lb. .18 - —
dms., l.c.l., t.l.l., Memphis, Tenn. lb. .19 - —
tanks, dlvd. E. of Denver lb. .175 - —
Fusel oil, refd. dms., c.l., dlvd lb. .18 - —
dms., l.c.l., dlvd. lb. .19½ - —
tanks, dlvd. lb. .15½ - —

G

G salt, bbls, frt. alld., 100% basis lb. 73 - —
Gallic acid, NF VII, bbls., 1,000-lb. lots lb. 2.00 - —
bbls., smaller lots lb. 2.02 2.22
Tech., bbls., 1,000-lb. lots lb. 1.78 - —
bbls., smaller lots lb. 1.80 2.00

Gamma acid, dry grd., bbls., frt. alld lb. 1.78 - —
Gammapicoline (see g-picoline).
Garlic oil, dom., bots. oz. 4.75 - 6.05
Imp., bots. oz. 4.50 - 5.00
Gaultheria oil (see Wintergreen oil).
Gelatin, edible 75 AOAC test, bbls., c.l., dlvd lb. .55 - —
150 AOAC test, bbls., c.l., dlvd. lb. .64 - —
200 AOAC test, bbls., c.l., dlvd. lb. .70 - —
225 AOAC test, bbls., c.l., dlvd. lb. .74 - —
275 AOAC test, bbls., c.l., dlvd. lb. .82 - —
Gelsemium root, bls. lb. .30 - .35
Gentian root, bls. lb. .24 - —
Grd., bbls, hxs lb. .30 - —
Powd., bbls hxs lb. .30 - —
Geraniol, extra cns, dms. lb. 1.75 2.40
Soap grade, dms lb .90 1.75
Standard cns, dms. lb. 1.65 —
Synthetic, dms lb 1.30 —
Geranium oil, Algerian, cns. lb. 21.00 -24.00
Bourbon, cns. lb. 14.00 -18.00
Turkish (see Palmarosa oil).
Geranyl acetate, cns lb 1.90 2.70
Synthetic, dms lb 1.45 —
Ginger oil, dist., bots. lb. 12.00 -14.00
Ginger oleoresin, NF from African root, bots lb. 4.25 5.00
NF from Jamaican root, bots. lb. 7.75 - —
Ginger root, Cochin, bgs. lb. .20 - —
Jamaican, No. 3, bgs. lb. .26 - —
Nigerian, split, bgs. lb. .23 - —
Sierra Leone, bgs. lb. .32 - —
Glauber's salt (see Sodium sulfate).
Gluconic acid, tech., 50%, dms., c.l., t.l., f.o.b. works lb. .20 - —
dms., l.c.l., f.o.b. works lb. .21 - —
tanks, f.o.b. works lb .17 - —
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd lb. .16 - —
131 jellygrams, bgs., c.l., same basis lb. .16½ —
164 jellygrams, bgs., c.l., same basis lb. .18½ —
191 jellygrams, bgs., c.l., same basis lb. .19½ —
222 jellygrams, bgs., c.l., same basis lb. .21 - —
Glue, green, 40 jellygrams, bgs., c.l., same basis lb. .16 - —
86 jellygrams, bgs., c.l., same basis lb. .16 - —
115 jellygrams, bgs., c.l., same basis lb. .16½ —
135 jellygrams, bgs., c.l., same basis lb. .17½ —
164 jellygrams, bgs., c.l., same basis lb. .18½ —
180 jellygrams, bgs., c.l., same basis lb. .19½ —
200 jellygrams, bgs., c.l., same basis lb. .20½ —
Bone glue, t.c.l., prices 2c. higher.
Glue hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .18 - —
95-149, bgs. c.l. dlvd lb. .19 - —
122-149, bgs., c.l., same basis lb. .20½ - —
150-177, bgs., c.l., same basis lb. .22½ - —
178-206, bgs., c.l. same basis lb. .25 - —
207-236, bgs., c.l. same basis lb. .28 - —
237-266, bgs., c.l., same basis lb. .30½ - —
267-295, bgs., c.l., same basis lb. .32½ - —
299-330, bgs., c.l., same basis lb. .34½ - —
331-362, bgs., c.l., same basis lb. .36½ - —
363-394, bgs., c.l., same basis lb. .38 - —
395-427, bgs., c.l., same basis lb. .40 - —
423-460, bgs., c.l., same basis lb. .42 - —
461-494, bgs., c.l., same basis lb. .44 - —
493-529, bgs., c.l., same basis lb. .46 - —
Hide glue t.c.l. prices 2c higher.
L-Glutamic acid, 99½%, fib dms., 100-lb lots, frt alld lb. 1.80 - —
fib dms. 25-lb lots, frt. alld. lb. 1.88 - —
L-Glutamine, bots., 1-9 kilo lots, kilo. 150.00 -300.00
Bots. 50 kilo lots kilo. 100.00 - —
Bots. 500-kilo lots kilo. 75.00 - —
Glycerine, dom. nat. crude saponification 88% tanks dlvd. lb. .13 - .13¼
nat., crude soapiye 80%, tanks, dlvd. lb. .12 - .12¾
nat. refd. USP CP, 99% dms., c.l., dlvd lb. .26¾ - —
dms., l.c.l., dlvd lb. .27½ - —
tanks, dlvd. lb. .24½ - —
Dom., nat., refd., USP, CP, 96% dms., c.l., dlvd lb. .25½ - —
dms., l.c.l., dlvd. lb. .26¼ - —
tanks, dlvd. lb. .23¾ - —
nat., high gravity, dms., c.l., dlvd lb. .26¼ - —
dms., l.c.l., dlvd lb. .27 - —
tanks, dlvd. lb. .24½ - —
Dom., refd., syn., 99.5%, dms., c.l., dlvd lb. .26½ - —
dms., l.c.l., dlvd lb. .27¼ - —
tanks, dlvd. lb. .24¾ - —
Imp., nat. crude, soaplye, 80%, c.i.f. lb. .12 - .12¼
Glycine (see Aminoacetic acid).
Glycerol (see Glycerine).
Glyceryl guaiacolate, 100-lb. fib. dm., dlvd lb. 4.00 - —
25-lb. fib. dm., dlvd. lb. 4.25 - —
Glycolic acid (see Hydroxyacetic acid).
No. 2, 90-95% bgs., fib. dms., ex whse lb. .29 .31
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works lb. .40 - —
dms., t.c.l., same basis lb. .42 - —
tanks, same basis lb. .39 - —
Glyoxal, 30%, dms., c.l., works lb. .20½ - —
dms., t.c.l., works lb. .21¼ - —
tanks, works lb. .18 - —
Golden seal root, NF, tested, bls. lb. 2.90 - 3.00
Gramicidin, 1 to 5 kilos, f.o.b. works, gram 4.25 - —
Grapefruit oil, dms lb. 2.40 - 2.60
Graphite, amorp., powd., bgs., fib. dms., ex whse lb. .06 - .09½
Cryst., 88-90% powd., bgs., fib. dms., ex whse lb. .19 - .21½
90-92%, powd., bgs., fib. dms., ex whse lb. .21 - .24½
Cryst., 95-97%, powd., bgs., fib. dms., ex whse lb. .29 - .31½
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
Grease, white, choice all hog, tanks, dlvd lb. .07½ - —
Yellow, tanks, dlvd. lb. .05 - —
Grease oil, No. 1, dms., c.l., f.o.b. Chicago lb. .12 - —
dms., l.c.l., same basis lb. .14 - —
tankcars, same basis lb. .10½ - —
Grease oil, extra winter, strained, dms., c.l. Chicago lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tankcars, same basis lb. .13½ - —
Prime, burning, dms., c.l., same basis, Chicago lb. .17 - —
dms., l.c.l., same basis lb. .19 - —
tankcars, same basis lb. .15½ - —
Other areas ¾c. higher, except Texas and West Coast, 1¼c. higher.

GREEN PIGMENTS
Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green

Grindelia robusta herb, bls lb .40 —
Guaiacol NF, cryst. dms. tins lb 2.10 2.15
liq., cbys., dms lb. 2.30 - 2.40
Guaiacwood oil, cns lb .65 .80
Guaiacol carbonate NF VII, dms lb 3.40 3.45
Guar gum, edible, bgs., c.l., f.o.b. shipt. pt lb. .38 —
bgs., t.c.l. same basis lb. .40 - .42
Indust., bgs., c.l., same basis lb. .32 - —
Tech., bgs., c.l., same basis lb. .30 - —

GUMS
Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum

H

H acid, dry, bbls. c.l., frt. alld., 100% basis lb. 1.00 - —
bbls., l.c.l., same basis lb. 1.05 - —
Hansa yellow 10 G, bbls., dlvd. E. of Rockies lb 2.45 —
Hansa G yellow, pigment, bbls lb 2.20 —
Hawthorn berries, bgs. lb. .18 .20
Heliotropin 100-lb lots, dms. lb. 2.60 3.40
Hellebore root dom., green, bls lb. .70 .75
Helonias root, bls. lb. 1.50 —
Hemlock oil, cns. lb. 2.55 3.00
Henbane leaves, bls lb. .40 .45
Heptachlor dms. c.l., t.l., frt. alld., 100% basis lb. .96 - —
Heptane, indust., tankcars, New Jersey and New York gal. .20 —
Houston, Texas gal. .1625 —
Hesperidin, purif., 50 kilos, f.o.b. works kilo. 19 70 - —
Hesperidin methylchalcone, 50 kilos, f.o.b. works kilo. 49 25 - —
Hexachlorophene, dms., 1,100 lbs. or more lb 1.84 - —
dms. to 1,100 lbs. lb 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech. bgs., 20,000-lb lots or more, Perth Amboy or New York City lb .233 - —
bgs., 1,000-19,999-lb. lots, same basis lb .243 - —
bgs. smaller lots, same basis lb. .253 - —
fib. dms., 1,000-lb. lots or more, same basis lb. .250 - —
fib dms. smaller lots, same basis lb. .253 - —
USP, bgs, 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia lb. .42½ - ¼ —
bgs. smaller lots, same basis lb. .43½ - .48¼
Hexane, industrial, tankcars, New Jersey and New York gal. .20 - —
Houston Texas gal. .16 - —
1-Hexanol, dms., c.l., works lb. .35 - —
dms., l.c.l., works lb. .35¼ - —
tanks, works lb 33 —
Hexyl cinnamic aldehyde, dms lb. 3.93 4.00
n-Hexyl methacrylate, dms., c.l., works lb. .75½ - —
dms. t.c.l., works lb. .76 - —
Hexyl salicylate, dms. lb. 1.70 1.75
Hexylene glycol, dms., c.l., dlvd lb. .17½ - —
dms., t.c.l., dlvd lb. .19 - —
tanks, dlvd lb. .15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more dlvd lb. 14.00 - —
dms. smaller lots, dlvd lb. 14.50 - —
Homatropine hydrobromide, USP, bots oz. 3.25 - —
methylbromide, USP, bots oz. 3.00 - —
Hoofmeal, 17-18% ammonia, bulk, c.l. Chicago unit-ton 6 75 —
Horehound herb, bls. lb. .18 - .20
Hydrastis (see Goldenseal.)
Hydrazine hydrate, 85%, 240-lb. dms., c.l., works lb. 1.28 - —
240-lb. dms., l.c.l., works lb. 1.35 - 1.55
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works lb. 2.92 - —
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd. zone 1 lb. .29¼ - —
dms., l.c.l., dlvd. zone 1 lb. .29¾ - .30¼
tanks, dlvd. zone 1 lb. .27¼ - —
Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.
Hydrobromic acid, medicinal, 48%, cbys., frt. equald lb. .48 - .56
Hydrochloric acid, anhyd. (see Hydrogen chloride.)
Hydrochloric acid, CP, USP, consumers, cbys, extra, c.l., works lb. .15¾ - —
cbys, t.c.l., same basis lb. .17¼ - .17¾
5-pint bots., extra cs. c.l., same basis lb. .20¾ - —
Hydrochloride acid, 18°, cbys., c.l., works 100 lbs. 2.50 - —
cbys., t.c.l., dlvd. Metropolitan area 100 lbs. 2.90 - 3.00
tanks, works, frt. equald ton. 28.00 - —
20°, cbys., c.l., works 100 lbs. 2.75 - —
cbys., t.c.l., dlvd. Metropolitan area 100 lbs. 3.15 - —
20°, tanks, works, frt. equald ton. 30.00 - —
22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys., t.c.l., dlvd. Metropolitan area 100 lbs. 3.65 - —
tanks, works, frt. equald ton. 35.00 - —
Hydrocortisone acetate, bulk, bots., kilo lots or more gram. .85 - .90
Hydrocortisone alcohol, bulk, bots., kilo lots or more gram. 1.00 1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pint bots., f.o.b. works, pint. .70 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)
Hydrofluoric acid, aqueous, 70%, 55-gal. or 30-gal dms., c.l., t.l., dlvd 100 lbs. 17.25 - —
55-gal. dms., t.c.l., t.t.l., dlvd 100 lbs. 18.75 - —
20-gal. dms., c.l., t.l., dlvd 100 lbs. 19.00 - —
20-gal., dms., t.c.l., t.t.l., dlvd. 100 lbs. 20.50 - —
tanks, works frt. equald 100 lbs. 11.50 - —
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.75 per cwt. for drum delivery.
Hydrofluosilicic acid, dms., works, 30% basis lb. .07 —

Hydrofuramide dms., fib. ctns., works lb. .30 - .40
50-lb cyls., t.c.l., works lb. .55 - .60
Hydrogen chloride anhyd., 50-lb. cyls. t.c.l. works lb. .45 - —
Hydrogen cyanide liq. 98% tanks, works lb. .13 - —
Hydrogen fluoride, anhyd., cyls., dlvd. E lb. .29 - .31
cyls., dlvd. W lb. .37 - —
tanks, works lb. .16 - —
Hydrogen peroxide 35% dms., c.l., dlvd lb. 202 - —
dms., t.c.l., dlvd. lb. .211 - —
tanks, dlvd lb. .1800- —
Hydroquinone, photo grade, dms., 50-lbs. f.o.b. works lb 1.10 - —
Tech., dms., c.l., dlvd lb. .82½- —
dms., t.c.l., dlvd lb. .84½- —
Hydroquinone monomethyl ether, dms., t.l. dlvd lb 2.59 - —
dms., t.t.l., dlvd lb 2.61 - —
Hydroxyacetic acid, tech., 70% dms. Philadelphia and Chicago lb .11 - —
tanks Belle W Va lb .073 —
Hydroxycitronellal, cns. lb. 5.65 - 6.00
Hydroxyethyl cellulose, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point lb. .69 - —
fib dms. 2,000 to 19,999-lb lots, same basis lb. .77 - —
Hydroxyethyl cellulose, fib., dms., 100 to 1,999-lb. lots, basis lb. .81 - —
fib. dms., smaller lots, same lb. 1.01 - —

Hyoscine salts (see Scopolamine).
Hyoscyamine hydrobromide, bots.oz. 7.75 - 8.50
Hyoscyamine sulfate, bots oz. 7.75 - 8.50
Hypophosphorous acid, purif., 50%, 10-chys. f.o.b. works lb. 1.95 - —
NF, 50%, 10-chys., same basis lb. 1.35 - —

I

Ichthammol, NF, dms. lb. .75 - 1.05
Indigo (see Dyes, Coaltar, 1171 indigo, syn.).
Indole, CP, bots lb. 13.65 -15.00
Inositol, 50-100 lb. dms., 1,000 lbs. or more dlvd lb. 4.50 - —
50-lb. dms., less than 1,000 lb., dlvd lb. 4.75 - —
10 lb. cns., 10-50 lbs., dlvd. lb. 5.00 - —
5 lb. bots., dlvd. lb. 5.25 - —
Insect flowers (see Pyrethrum).
Iodine, crude, kgs. lb. 1.10 - —
Resub., USP, dms., f.o.b. works lb. 2.20 - 2.22
Iodochlorohydroquinolin, USP, dms. lb. 3.60 - —
Iodoform, NF, dms., 300-lbs., f.o.b. works lb. 4.90 - —
dms., 100-lb., same basis lb. 5.05 - —
a-Ionone, cns. lb. 4.60 - 5.75
b-Ionone, cns. lb. 4.15 - 6.15
Ipecac root, whole, bgs. lb. 7.75 - 8.00
Powd., bbls., bxs. lb. 9.00 - 9.25
Irish moss, bleached, prime, bls. lb. .35 - —

Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .60 - —
bbls., t.c.l. ton lots, same basis. lb. .61 - —
bbls., smaller lots, same basis. lb. .62 - —
Dom., reg. bbls., c.l., dlvd. E lb. .55 - —
alkali-resistant, dom., reg., bbls., c.l., ton lots, same basis lb. .56 - —
bbls. t.c.l. smaller lots same basis lb. .57 - —
Imp., British, reg., bbls. c.l. dlvd. E lb. .48 - —
bbls. t.c.l. ton lots, same basis lb. .49 - —
Iron blue, imp., British, reg., bbls., t.c.l., smaller lots, same basis lb. .50 - —
Iron blue dlvd. prices 1c higher for Pacific Coast states: Wash., Ore., Cal., N M., Ariz., Mont. Wyo. Utah, Col and Nev
Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure bgs., c.l., works lb. .14¾- —
bgs., t.c.l., works lb. .15 - —
Iron oxide, brown, pure bgs., c.l., works lb. .14¼- —
bgs., t.c.l., works lb. .14½- —
Iron oxide, metallic, brown, bgs., works lb. .05½- —
Iron oxide, Persian Gulf, red., bgs., c.l., works lb. .08¾- —
Iron oxide, red, dom., pure bgs., Bethlehem, E. St. Louis, New York City lb. .14¼- —
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works lb. .06¼- —
bgs., t.c.l., works lb. .06½- —
Iron oxide, Spanish red, bbls., c.l., ex dock lb. .05¾ Nom.
bbls., t.c.l., ex dock lb. .06 Nom.
bbls., t.c.l., ex whse, New York. lb. .06½ Nom.

Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¾- .07
Peruvian type, bgs., t.c.l. lb. .023 .024
Iron oxide, yellow, pure, light lemon shade, bgs., c.l., works lb. .12¼- —
other shades, same basis lb. .12 - .12½
Isoamyl alcohol, dms., c.l., works, frt. alld E lb. .27½- —
Isoamyl alcohol, dms., t.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Isoborneol cns. lb. 1.44 - 1.80
Isobornyl acetate, cns. lb. .48 - .56
Isobornyl formate, dms. lb. 1.15 - 1.20
Isobornyl propionate, dms. lb. 1.20 - 1.25
Isobutyl acetate, perfume grade, cns lb. .30 - .35
Solvent grade, dms., c.l., dlvd. E. of Rockies lb. .15¼- —
dms., t.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., t.c.l., dlvd. lb. .17 - —
tanks, dlvd. lb. .13 - —
Isobutylene, 99% tanks, works gal. .38 - —
Isobutyl isobutyrate, dms., f.o.b. works lb. .75 - —
Isobutyraldehyde, tech., dms., c.l., dlvd lb. .22 - —
dms., t.c.l., dlvd. lb. .23½- —
tanks, dlvd. lb. .19½- —
Isobutyric acid, dms. c.l., t.l., dlvd. lb. .35 - —
dms., t.c.l., t.t.l., same basis lb. .36½- —
t.c.l., t.t., same basis lb. .33 —
Isobutyronitrile, d.ns., c.l., dlvd. lb. .47½- —
dms., t.c.l., dlvd lb. .48½- —
tanks, dlvd. lb. .45 - —
Isoeugenol, cns. lb. 3.10 - 3.40
Isoniazid, powd., bulk, 50 kilos kilo. 12.00 - —
Isonicotinic acid, 100-lb fib. dms., works lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .20½- —
dms., t.c.l., dlvd. E lb. .22 - —
tanks, dlvd. E lb. .18 - —
Isopentane, comi. grade, tanks, f.o.b. Tex refy gal. .16½- —
Isophorone, dms., c.l., dlvd. lb. .25 - —
dms., t.c.l., dlvd. lb. .26½- —
tanks, dlvd lb. .22½- —
Isophthalic acid, dms., c.l., works, frt. equald lb. .14½- —
dms., t.c.l., same basis lb. .15½- —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms., c.l., dlvd, lb. .14 - —
dms., t.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd gal. .58 - —
dms., t.c.l., dlvd. gal. .58 - —
tanks, dlvd. gal. .42 - —
Isopropyl alcohol, 95%, c.l., dms., dlvd gal. .60 - —
dms., t.c.l., dlvd. gal. .70 - —
tanks, dlvd gal. .44 - —
Anhyd., c.l., dlvd gal. .62 - —
dms., t.c.l., dlvd. gal. .72 - —
tanks, dlvd gal. .46 - —
Isopropyl benzene (see Cumene).
Isopropyl ether dms., c.l., dlvd lb. .09½- —
dms., t.c.l., dlvd. lb. .11 - —
tanks, dlvd lb. .07 - —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l. t.l., works lb. 1.00 - —
dms., t.c.l., works lb. 1.05 - 1.25
tanks, works lb. .99 - —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb fib dms. c.l., t.l., works lb. .75 - —
450-lb fib dms., t.c.l., works lb. .80 .90
Isoquinoline, dms., works lb. .65 1.25
Itaconic acid refd. bgs. c.l. f.o.b. works lb. .39½- —
bgs., t.c.l., same basis lb. .41 - .43
Tech., bgs., c.l., same basis lb. .34½- —
bgs., 500-lbs. same basis lb. .36 - —

J

J acid, paste bbls., works, 100% basis lb. 2.70 - —
Powd. bbls. same basis lb. 2.75 - —
Jalap root, NF, bls lb. .55 - .60
NF, powd., bbls., bxs lb. .65 - .70
Japan wax, cs. lb. .29 - .31
Juniper berries, bgs. lb. .25 - .30
Juniper berry oil, NF, bots. lb. 2.90 - 3.75
Twice rectified, bots. lb. 3.25 - —
Juniper tar oil, NF, dms. lb. .42 - .60
Juniper wood oil, tech. cns. lb. .38 - .55

K

Kaolin (see also Clay, China).
Kaolin NF, powd., fib dms lb. .10 - .12
NF colloidal 50-lb bgs lb. .15½- .17½
Karaya gum No 1, NF, powd., bls lb. .48 - .50
No. 2, powd. bbls. lb. .43 - .45
No. 3, powd. bbls. lb. .37 - .40
Koch acid bbls., frt. alld., 100% basis lb. 1.00 - —
Kola nuts, bgs. lb. .11 - .12

L

L acid, bbls., works lb. 1.25 - —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York gal. .20 - —
Group 3 gal. .15125- —
Houston Texas gal. .16 - —
200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 - —
Group 3 gal. .14125- —
Houston, Texas gal. .16 - —
Lactic acid, food processing, 50%, dms., c.l., t.l., dlvd. N.Y., Phila lb. .1986- —
dms. 20 or more, same basis, lb. .2036- —
dms., 5 to 19, same basis lb. .2086- —
dms., 1 to 4, same basis lb. .2136- —
80%, c.l., dms., same basis lb. .3336- —
dms., 20 or more, same basis, lb. .3386- —
dms., 5 to 19, same basis lb. .3436- —
dms., 1 to 4, same basis lb. .3486- —
Plastic grade, 50% c.l., bbls., works lb. .2740- —
bbls., 20 or more, works lb. .2790- —
bbls. 5 to 19 works lb. .2840- —
bbls., 1 to 4, works lb. .2890- —
Plastic grade, 80% bbls., c.l., works lb. .4625- —
bbls. 5 to 19, works lb. .4725- —
bbls., 1 to 4, works lb. .4775- —
Tech., 44%, bbls., c.l., works, 100 lbs. 12.45 - —
bbls., t.c.l., works 100 lbs. 12.85 - —
USP, 85% chys. lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb lots, frt equald lb. .14 - —
bgs., 6,000-lb lots, frt equald lb. .14½- —
bgs., 2,000-lb lots, frt equald lb 14¾- —
bgs., 200-lb lots, frt equald lb 15¼- —
Edible lactose in fib. dms., ½c. higher.

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PANCOAT TABLETS IN ONLY 4 HOURS!

Extensive research with the unique properties of Lactose U.S.P. Spray Dried has led to the discovery of a totally new pancoating concept. Tablets can now be pancoated, finished and waxed using existing equipment in as little as four hours with a maximum of four to six subcoating applications. This innovation in pancoating revolves around the rapid build-up of subcoatings and the elimination of grossing and color steps. The result is smooth-surfaced, spheroid-shaped tablets that have improved stability. And they dissolve quicker than conventional coated tablets. The free flowing property of Lactose U.S.P. Spray Dried assures uniform color intensity...fewer operator variables...and allows the pancoating process to be efficiently automated. Lactose U.S.P. Spray Dried, a Foremost exclusive, is available in a variety of colors, plus pure white. Strict chemical and bacteriological specifications and a rigid quality control program deliver highest quality.

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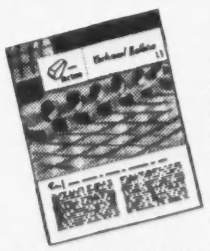

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Lactose, ferment, grade, bgs., c.l., works lb. .08¾- —
USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms., 2,000-lb lots, frt. equald lb. .22¼- —
200-1,880-lb. lots, frt. equald lb. .22¾- —
USP lactose in bags ½c to 1c lower.
Lactose, USP, spray dried, bgs., l.l., frt. equald lb. .18½- —
bgs., l.t.l., frt. equald lb. .19 .19¾
Lady's slipper root, bls lb. 3.00 3.50
Lamp black, bgs., c.l., works lb. .16 .45
Lanolin, USP anhyd. 400-lb dms., works lb. .24 .26
USP, annyd., cosmetic, 400-lb. dms., works lb. .26 .30
USP, hydrous, 400-lb dms., works. lb. .20 —
Lard, cash, dms., Chicago lb. .08175- —
Lard oil (see Grease oil).
Larkspur seed bgs. lb. .55 - —
Laurel leaf oil dms. cns. lb 9.75 - 12.50
Laurent's acid, bbls lb. .87 - —
Lauric acid, pure, dms. lb. .30¼- .32¼
bags lb. .28¾- .31¼
tanks lb. .27¾- —
Lauryl alcohol, bots lb. 2.00 2.50
n-Lauryl methacrylate, dms., c.l., t.l. works lb .65½- —
dms. t.t., works lb .66 —
Lavandin oil, 22-24%, dms. lb. 1.15 - —
Abrial, dms. lb. 1.20 - —
Lavender flowers, medium, bls lb .55 .60
Ord., bls lb. .20 .25
Select., bls lb. .90 1.00
Lavender flower oil, USP, French, 35-37% ester, cns lb 1.85 4.00
40-42% ester, cns. lb. 3.50 3.65
Spike, Spanish, cns lb. 1.75 2.00
Lead acetate, NF cryst., gran., powd., bbls lb. .34½- —
White, cryst., bbls. lb. .25½- —
gran., bbls. lb. .26½- —
powd., bbls lb. .26½- —
Lead arsenate acid powder, dealers, 3-50-lb. bgs or any quantity frt alld on $150 or more lb. .30½- —
1-lb bgs. same basis lb. .47 - —
Lead, blue, basic sulfate, bbls., c.l., shipt point, frt. alld lb. .17 - —
bbls., l.c.l., same basis lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate)
Lead chloride, 400-lb. fib. dms lb. .56 - —
Lead iodide NF v lars lb 3.82 - —
Lead linoleate, fused, 24% liq. Pb, dms lb. .21¼- —
Lead metal, prime, pigs, New York. lb. .11 - —
St. Louis lb. .1080- —
Lead monosilicate, bgs., c.l., works, frt equald lb. .1385- —
bgs., l.c.l., same basis lb. .1485- —
Lead naphthenate, liq., 16% Pb., dms., dlvd lb. .19½- —
24% Pb. dms., dlvd lb. .24¼- —
Solid, 47% Pb., dms dlvd lb .31¾- —
Lead nitrate, tech., cryst., 400-lb. fib. dms lb. .2675- —
Lead orthosilicate gel, 50-60% PbO, dms. works lb. .29¾- .34¼
Lead peroxide tech powd., bbls lb. .45 - .50
Lead phthalate dibasic, dms. works, lb. .41 - —
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald, lb. .1373- —
bbls. l.c.l., same basis lb. .1475- —
97%, Pb_3O_4 or less, bbls., same basis lb. .1395- —
bbls., l.c.l., same basis lb. .1495- —
Lead, red, 98% Pb_3O_4, bls., c.l., same basis lb. .1410- —
bbls. l.c.l., same basis lb. .1510- —
Lead, resinate precip, 23%Pb dms., lb. .49 - —
Lead salicylate normal dms. works lb. .46 - —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs point, frt. alld lb. .20 - —
bgs., l.c.l., same basis lb .21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate liq. 16% Pb. dms lb. .17¼- —
24% Pb. dms lb. .21¼- —
Solid, 30% Pb. dms lb. .26¾- —
Lead white, basic carbonate, bgs., c.l. shipt pt., frt. alld lb. .18 - —
bgs l.c.l. same basis lb. .19 - —
Basic silicate, bgs., c.l., shipt. pt., frt. alld lb. .16½- —
bgs., l.c.l., same basis lb. .17½- —
Lecithin, edible tech. bleached, non-ret dms., c.l. works, lb. .14 - .15
non-ret dms. l.c.l., same basis lb. .15 - .16
unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret dms. l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex, 50 kilos, f.o.b works kilo.14.20 - —
Lemon oil, USP, Calif., cns., dms. lb. 2.45 - 3.75
Messina, cns lb. 4.00 - 6.50
Lemongrass oil, cns., dms lb. 3.00 - —
dl-Leucine, dms. 1 kilo, works kilo.50.00 - —
Licorice root, gran. bls. lb 13 - —
Powd. bls lb 15 .16
Whole bls lb .09 .10
Lignaloe wood oil, Mexican, cns lb. 2.75 - 3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate)
Lilac oil lb. 1,500.00
Lime, chemical (quicklime), bulk, c.l. 50,000 lbs. works, E. ton.14.25 - —
Chemical, hydrated, bgs., c.l., same basis ton.17.25 - —
spray, bgs. c.l. same basis ton.18.25 —
For New York delivery add $6.29 freight charge
Lime oil, dist., Mexican, dms. lb. 5.25 - 6.00
West Indian, dms. lb. 5.25 - 6.00
Expressed, West Indian, dms lb 6.50 7.75
Lime salts (see Calcium)
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool ex bois de rose oil dms. lb. 2.45 4.25
Syn., 98-100%, dms., works lb. 3.20 - —
Linalyl acetate ex bois de rose, 90-92%, dms lb 2.65 4.50
96-98% dms lb 3.25 —
Syn., 98-100%, dms., works lb. 3.20 - —
Lindane, 25% formulation, to distributors dms. frt. alld. lb. 1.35 - 1.50
99%, tech. to formulators, 250-lb. dms., 5,000 lbs., dlvd lb. 2.13 - —
100-lb dms. 5,000-lbs. dlvd lb 2.15 - —
250-lb dms. less than 5,000 lbs., dlvd lb. 2.18 - —
100-lb dms. less than 5,000 lbs. dlvd lb. 2.20 —
Linden flowers, with leaves bls lb. .35 .40
Without leaves bls lb. .42 .45
Linseed meal, expeller, 32%, bulk, Minneapolis, mills ton.61.00 - —
Extracted, 34%, bulk, same basis ton.56.50 - —
Linseed oil, raw, dms., c.l., New York lb. .1880- —
Linseed oil, raw, dms., l.c.l., New York lb. .2080- —
tanks, f.o.b. Minneapolis lb. .1520- —
tanks, New York lb. .1628- —
tankwagon, New York lb. .1653- —
Boiled linseed oil, .006c. per lb. higher.
Linseed oil acid, water white, dms lb. .2975- .31
Litharge, comi., powd. bbls., c.l., works, frt. equald lb. .1325- —
bbls., l.c.l., same basis lb. .1425- —
Lithium aluminum, hydride, lump, dms., works lb.33.00 -39.00
Lithium benzoate dms. lb 1.65 1.67
Lithium bromide, NF, gran., bgs., works, frt. equald lb 2.60 - —
Lithium carbonate, NF, dms., ton lots lb. .58 - —
dms., 1,999 lbs. or less lb. .64 - —
Tech., dms., ton lots lb. .57 - —
dms., 1,999 lbs. or less lb. .63 - —
Lithium chloride CP, anhyd., dms., ton lots lb. 1.23½- —
Tech. anhyd. dms., c.l., t.l., dlvd. or works, frt. alld lb. .87 - —
dms. l.c.l. same basis lb. .88 - .92
Lithium citrate NF dms. ton lots. lb. 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd lb. 1.75 - —
bbls., ton lots and more, dlvd lb. 1.85 - —
bbls., less ton lots, dlvd lb. 1.90 - —
Lithium hydride, powd., dms., 500-lbs lots or more works. lb. 9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld. lb. .54 - —
dms., l.c.l., frt. alld. lb. .58 - —
Lithium manganite, dms. works lb. .95 1.05
Lithium nitrate, tech. dms., 100-lb lots lb 1.15 1.25
Lithium salicylate, dms. lb 1.60 1.70
Lithium silicate, dms., works lb. 1.10 1.20
Lithium stearate, dms., c.l., works, lb. .47½- —
dms., ton lots, works lb. .48½- —
dms., less-ton lots, works lb. .53½- —
Lithium sulfate, dms., 100-lb. lots, lb. 1.15 1.25
Lithium titanate, dms., works lb. 1.15 - 1.25
Lithol red toner, barium, bbls., works lb. 1.03 - —
Lithol-rubine red toner, pure, bbls., works lb. 1.65 - —
Resinated, bbls., works lb. 1.47 - —
Lithopone ord. bgs., c.l., dlvd lb. .02¾- —
bgs., l.c.l., dlvd, E lb. .09½- —
Titanated (high-strength), bgs., c.l., dlvd lb. .11 - —
bgs. l.c.l. dlvd lb. .12 - —
Lobelia herb, bls. lb. .80 - —
Loheline sulfate, bots., 50-oz. lots, works oz.30.00 - —
Locust bean gum, powd., bgs. lb. .35 .40
Lycododium, cs. lb 2.50 3.00
l-Lysine monohydrochloride, 25-lb. dms. lb. 4.50 - —

M

Mace, Siauw, No. 1, bls. lb. 1.30 - 1.33
No. 2, whole, bls. lb. 1.20 - 1.23
siftings, bls. lb. 1.15 —
Mace oil, dist., cns., dms. lb. 8.00 -10.00
Magnesia, calcined, tech. bgs., cns. frt equald lb. .25¾- .26½
Tech., syn., rubber grade, light, bgs., c.l., frt. equald lb .28¾- .30
Magnesia, calcined, tech., syn., rubber grade, extra light, bgs., c.l., frt. equald lb. .28 - —
bgs. l.c.l. frt equald lb 28¾ —
Above prices are quoted f.o.b. works freight equald., with Metropolitan New York and competitive producing points.
Magnesia, calcined, tech., heavy, 85% bgs. c.l. f.o.b. Lunning, Nev ton 39.50 —
91%, bgs., c.l., same basis ton 49.50 —
95%, bgs., c.l. same basis ton 59.00 —
USP, light, bgs. lb 36½ 37½
USP, heavy, bgs lb .36½ .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt equald ton 86.25 - —
Deadburnt, standard grain, bulk, c.l., Chawelah, Wash. ton.46.00 - —
Magnesium bromide, 80-lb. dm., f.o.b. works lb 1.15 - —
Magnesium carbonate, tech., bgs., c.l., frt. equald lb. .11 - —
bgs., l.t.l., frt. equald lb. .11½- —
bgs., l.c.l. frt equald lb. .13½- .14
USP, bgs., c.l., frt. equald lb. .13½- —
bgs. t.t., frt equald lb .14 —
bgs., l.c.l. frt equald lb .15 16
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.

One oil guarantees
full lemon flavor
every single time
It's Exchange Lemon Oil U.S.P., California Cold Pressed. Here is lemon flavor as it should be—full of the aromatic pungency of California's best lemons. And it's uniform—the same, batch after batch. Only the Sunkist Growers, with the world's largest stocks of coastal, highland and desert-grown lemons at their command, could produce an oil with such consistent flavor balance.
Always look for "Exchange" on the tamper-proof container seal—your guarantee it was pressed and packed by the Sunkist Growers. You can depend on it.
Sunkist Growers
Products Sales Department, Ontario, California
Sunkist Products Division Offices
60 Park Place, Newark 2, N.J. • 318 Cadiz Street, Dallas 7, Tex.
400 West Madison Street, Chicago 6, Ill.
Distributed by Ungerer & Co.
Exchange

Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l., works lb. .12¾- —
dms. l.c.l., works lb. .14 .15
hydrous, 99%, flake, bgs., c.l., works ton.60.00 - —
bgs., l.c.l., works ton.75.00 -100.00
Magnesium gluconate 100-lb. dm., f.o.b. works. E lb. 1.42 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b. works lb. .24½- .25½
Magnesium lauryl sulfate, dms., c.l., frt. alld lb. .22½- —
dms., l.t.l., frt alld lb. .23½- —
tanks, frt alld. lb. .21½- —
Magnesium metal, 99.8%, ingots, 10,000-lb lots or more, works lb .36 - —
pigs., 10,000-lb. lots or more, works lb. .35¼- —
sticks, cs., works, same basis lb. .59 - —
Magnesium nitrate, cryst., dms., works lb. .29 - —
Magnesium oxide (see Magnesia calcined).
Magnesium phosphate tribasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc).
Magnesium silicofluoride, dms., works lb .10½- .12
Magnesium sulfate, tech., bgs., c.l., works 100 lbs. 2.15 - —
bgs. l.c.l., works 100 lbs. 2.90 - 3.15
USP, cryst., bgs., c.l., works. 100 lbs. 2.35 - —
bgs. l.c.l. 5,000 lbs., 1 withdrawal 100 lbs. 3.10 - —
bgs., smaller lots 100 lbs. 3.35 - —
Magnesium trisilicate, USP, powd., fib. dms., 5,000-lb. lots lb. .38 - —
fib. dms. 1,000-lb lots lb. .40 - —
fib dms. 100-lb lots lb. .45 - —
USP, micronized powd., dms., 500-lb. lots lb. .60 - —
Malachite green, straight, PTA, bbls., works lb. 5.30 - —
Malathion, dms., c.l., works lb. .89 - —
dms., l.c.l., works lb. .92 1.01
Maleic acid, cryst., powd. dms lb. .37¼- —
Maleic anhydride, dms., c.l., frt. equald lb. .24 —
dms., l.c.l., frt. equald lb. .25½- —
tanks frt equald lb. .22½- —
Maleic anhydride in bags ½c. per lb. less.
Malic acid, tech., dms lb. .50 - —
Mandelic acid, NF, dms., 1,000-lb. lots lb. 2.35 - —
dms., smaller lots lb. 2.40 - 2.50
Mandrake root, bls lb. .42 - .48
Manganese acetate, dms., dlvd lb. .35 - —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb lots and more, works lb. .11 - .18
Manganese chloride, CP, anhyd., dms., 20,000-lb lots, works lb. .21¾- —
smaller lots, works lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross tor net works ton.148.00 - —
40,000 to 99,999-lb lots, paper bgs., same basis ton.144.50 - —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, dms. same basis ton.152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb lots. $3 per ton higher.
Manganese gluconate dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophospnite, NF dms. lb. 3.52 - —
Manganese linoleate, liq. 6% Mn, dms. lb. .26½- —
Solid, precip., 8.2% Mn. bbls lb. .41¼ —
Manganese metal, electrolytic, dms., c.l., dlvd. E lb. .34½- —
dms., ton lots, dlvd E lb. .37 - —
dms., smaller lots, dlvd E lb. .39 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .29¾- —
Manganese resinate fused, 3½% Mn dms lb .29¼- —
Precip., 6½ 7% Mn, dms. lb. .42 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd S., E ton.86.50 - —
bgs. l.c.l. dlvd S., E ton.93.50 - —
75% $MnSO_4$, 30-tons same basis 85.00- —
Manganese tallate 6% dms. lb. .26½- —
Manila copal gum, C, bgs lb. .35 .39
DBB, bgs lb. .24½- 28
DK, dust, bgs. lb. .14 Nom.
MA soft, bgs lb. .20 .24
WS, bgs lb. No stocks.
Mannitol com'l fib dms., ton lots, works lb. .60 —
fib dms. to ton lots, works lb. .62 - —
fib dms. single dm., works lb. .65 - —
Marine pitch, dms lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works lb. .26½- —
bgs., l.c.l., works lb. .28 - —
Menadione, USP bots. gram. .044 - 05
Menhaden oil crude, tanks, works, Atl. & Gulf ports lb. .05½- —
Menthol, nat USP, Brazilian large crystals, cs lb. 7.40 - 7.60
Nat. USP Brazilian, regular crystals, cs lb. 7.30 - 7.50
Japanese, cs. lb.10.25 -10.50
Syn., USP, racemic, 25-lb. lots lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 - —
bgs. fib dms. less ton lots, same basis lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib dms., ton lots, works, frt. alld lb. .54 - —
bgs. fib dms. less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst., dms., 100 lbs. f.o.b works lb 4.03 - —
USP gran. or powd., 50-lb. dm., 100 lbs. f.o.b works lb 3.78 - —
Mercuric cyanide, NF VIII powd., fib dms lb 5.84 - —
Mercuric iodide red, NF, 100-lb. dm. f.o.b works lb 6.97 - —
Mercuric oxide red NF IX 50-lb. dm. 100 lbs. f.o.b works. lb 4.72 - —
tech. 50-lb dm. 100 lbs., same basis lb 4.52 - —
yellow, NF, 50-lb. dm., 100 lbs., same basis lb. 4.89 - —
tech., dms., 100 lbs. lb. 4.35 - —
25-lb. fib. dm. lb. 4.38 - —
Mercurous chloride (see Calomel).
Mercury, ammoniated (see White precipitate USP XV).
Mercury metal, 76 lbs. per flask, net-flask.188.00 -190.00
Mesityl oxide, dms., c.l., dlvd lb. .15 —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works lb. .57 - .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine)
Metatoluidine (see m-Toluidine)
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid, glacial 98%, dms., truckloads frt. equald lb. .42½- —
dms., smaller lots, frt equald. lb. .43 - .75
tanks, works, frt. equald lb. .40 - —
Methanol, nat, denaturing grade, tanks, frt. alld gal. .85 - —
Syn., zone 1, dms., c.l., or t.l. min., dlvd gal. .51½- —
dms., t.c.l., dlvd gal. .61½- —
Syn., tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area gal. .35 - —
tankwagon, 4,000 gal. min., dlvd gal. .30 - —
tankwagon, 4,000 gal. min., f.o.b. terminal gal. .29 - —
Syn., zone 2, dms., c.l., t.l., min., frt. alld. or dlvd. gal. .55½- —
dms., t.c.l., works gal. .65½- —
Methanol, syn, Zone 2, tankwagon, 2,000-4,000 gal. lots, min., dlvd, Metropolitan area gal. .39 - —
tanks, 4,000 gal. min., dlvd, gal. .34 - —

Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald lb.21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt. equald lb.27.25 - —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt alld. lb 1.10 - —
dms., t.t.l., same basis lb 1.16 - —
dl-Methionine, fib. dms., frt. alld., 50-lb or more lb 3.50 - —
Feed grade, 98% fib dms. same basis lb. 1.43 - —
Methoxychlor, 50% wettable powder, dealers, dms., cs lb. .66 - —
Methyl abietate, non-ret dms., c.l., dlvd. zone 1 lb. .21½- —
non-ret. dms., t.c.l., same basis lb. .22 - .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd. zone 1 lb. .23½- —
non-ret. dms., t.c.l., same basis. lb. .24 - .24½

Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.

Methyl acetone, nat., dms., t.c.l., E. of Miss., frt. alld gal. .62¼- —
Syn., dms., c.l., frt. alld. E. gal. .60½- —
dms., t.c.l., frt. alld. E gal. 70½- —
tanks, frt. alld. E. gal. .44½- —

Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.

Methyl acrylate, dms., c.l., t.l., dlvd. lb. .35¼- —
dms., t.t.l., dlvd lb. .36¼- —
tanks, dlvd. lb. .32¼- —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., t.c.l., dlvd. E. lb. .18½- —
tanks, dlvd. E. lb. .14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 - —
dms., t.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Methyl amyl ketone, dms., c.l., t.l., f.o.b. works lb. 1.99¼- —
dms., t.c.l., same basis lb. 2.00 - —
N-Methylaniline, tech., tanks, frt. alld. lb. .60 - —
Methylanthranilate, cns. lb. 2.20 - 2.70
Methyl benzoate, cns., dms. lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .62 - .72
on 100 lbs. lb. .73 - .79
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .89 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs. lb. 1.05 - —

COMMERCIAL SOLVENTS CORPORATION
NITROPARAFFINS DEPARTMENT
260 MADISON AVENUE, NEW YORK 16, N. Y.

CSC AMINOHYDROXIES

SUBJECT	CSC Aminohydroxy Compounds	DESCRIPTION	Excellent emulsifiers, solubilizers and raw materials for resins
ACTION DESIRED	Study possibilities of new application to water-soluble and water-dispersible resin finishes as well as upgrading alkyd resins		

General

AMP and Tris Amino are two quality CSC Aminohydroxy Compounds, versatile chemicals that will react with higher fatty acids to form a group of soaps with unusually strong emulsifying power. Each contains a primary amine group and at least one primary hydroxyl group and are consequently of interest in chemical synthesis. High boiling points and moderately low combining weights are distinguishing features. These NP derivatives are useful as solubilizers and intermediates in alkyd resins and synthetic drying oils; emulsifying agents in the form of their soaps for floor wax and other polishes, paints, and cleaners; stabilizers in urea-formaldehyde and melamine finishes, ingredients of specialties for textile, leather, and other industries.

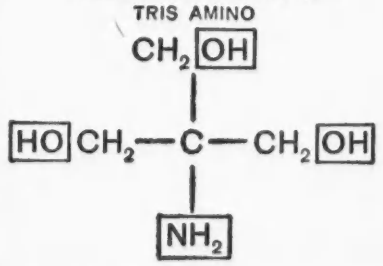
Tris Amino

CSC's Tris (hydroxymethyl) aminomethane is unique, the only tri hydroxy molecule commercially available having a primary amine group. Because of the amine group in Tris Amino the reactions which it undergoes in alkyd cooks are different from those encountered with conventional polyols. Recent work in CSC's laboratories has shown that considerable upgrading of alkyd resins can be achieved by incorporating in the formulation relatively small amounts of Tris Amino. Improvements have been shown in acid resistance, salt spray resistance, and gloss retention when conventional alkyds have been modified according to these new techniques. The details are contained in CSC's new Nitroparaffin Technical Bulletins Nos. 5 and 6. Easily emulsifiable synthetic drying oils with superior wetting properties can also be prepared using Tris Amino. CSC will be happy to make a technical representative available to discuss in detail these recent developments in resin technology.

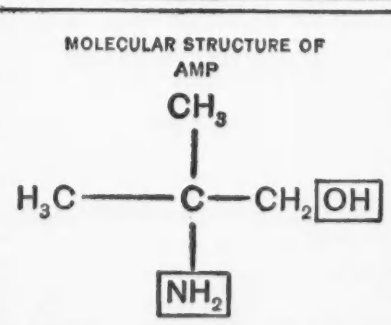
AMP

CSC's 2-Amino-2-methyl-1-propanol, or AMP, is economical, efficient and versatile, ideal as a solubilizer for water soluble resins, and a mild odored pH adjuster. In latex systems AMP is economical because of its emulsifying efficacy; the cost to emulsify a pound of solids is less than with lower priced amines, and the emulsions prepared with AMP have exceptional stability. AMP is also versatile, being both a solubilizer and dispersing agent as well as an emulsifier. Its advantages are most striking when used as an emulsifier in preparing self-polishing floor waxes and water-based paints, for adjusting pH of acrylic and butadiene-styrene emulsion paints, for inhibiting gelation during storage of finishes containing urea-formaldehyde or melamine resins, for reducing viscosity of sanding sealers containing stearates, as a catalyst for making urea-formaldehyde resins.

MOLECULAR STRUCTURE OF TRIS AMINO



MOLECULAR STRUCTURE OF AMP



Methyl cellulose, standard vis. (15,400 cps.) 50-lb. bgs., e.l., frt. alld ..... lb. .69 • —
50-lb. bgs., 2,000-lb. lots and more, same basis ..... lb. .76 • —
50-lb. bgs., smaller lots, frt. alld.
Methyl chloride, tndust., cyls., frt. equald. lb. .22¼ • —
tanks, multi-unit, same basis. lb. .16¼ • —
tanks, single unit, same basis. lb. .12¾ • —
Refrigerator mfgs., cyls., dlvd. lb. .48¾ • —
Other consumers or service men, cyls., dlvd. lb. .67¾ • —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns. ..... lb. 2.05 • 2.20
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 • —
dms., l.c.l., dlvd. ..... lb. .16½ • —
tanks, dlvd. ..... lb. .12½ • —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. .45 • —
dms., l.c.l., works ..... lb. .45¾ • —
tanks, works ..... lb. .43 • —
Methyl formate, refd., dms ... lb. .35 • .40
Tech., non-ret. dms., any quantity, works lb. .10 • —
tanks, works lb. .07 • —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .26 • —
100-lb. multiwall paper bgs., t.l., min 23,000 lbs., works. lb. .27 • —
100-lb multiwall paper bgs., l.t.l., works lb. .28 • —
Methyl heptin carbonate, bots. lb. 27.25 - 29.00
Methyl p-hydroxybenzoate, 6b dms. lb. 1.90 2.00
Methyl ionone, standard, cns., dms. lb. 3.40 - 3.85

Methyl isoamyl ketone, dms., c.l., dlvd. lb. .20 • —
dms., l.c.l., dlvd. ..... lb. .20¼ • —
tanks, dlvd. ..... lb. .17½ • —
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl ketone, dms., c.l., dlvd. lb. .17 • —
dms., l.c.l., dlvd. ..... lb. .18½ • —
tanks, dlvd. ..... lb. .14½ • —
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W. Va lb. .31 • —
dms., smaller lots, same basis lb. .31½ • —
tanks, same basis ..... lb. .29 • —
Methyl naphthyl ketone, cryst., cns. lb. 2.45 • 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate).
Methyl parathion, tech., 80%, dms., frt. alld. E lb. .84 • —
Methyl parathion prices 2c. per lb. higher in West.
Methyl roseaniline chloride, NF., 5-lb. fib. dms lb. 6.90 • —
Methyl salicylate, dms., t.l., frt. alld lb. .60¼ • —
dms., l.c.l., same basis ..... lb. .62½ • .67½
Methyl testosterone, USP, 100-gram. bots gram. No Prices.
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works lb. 1.32 • —
5-39 dm lots, same basis ... lb. 1.37 • —
tanks, same basis ..... lb. 1.27 • —
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies lb. 2.95 • —
Tungstated, PTMA, bbls., same basis lb 4.35 • —
Methyl violet prices 1c. higher W. of Rockies.

Methylene blue, NF, crystals, 100-lbs., frt. equald. lb. 4.10 • —
Methylene chloride, tech., straight or assorted, dms., c.l., or t.l., dlvd. lb. .12½ • —
dms., l.c.l., t.l., dlvd ..... lb. .15¾ • —
tanks, 4,000-gal. min., dlvd. lb. .11¼ • —
b-Methylnaphthalene, 32°C., m.p., dms., works lb .90 • —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs., c.l., works lb. .04 • —
roofing, 20 to 80 mesh, works lb. .03 • —
wet-grd., biotite, bgs., c.l., works, frt. alld.E lb. .06½ • —
bgs., l.c.l., ex-whse. ..... lb. .07¼ • —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld E. lb. .08¼ • —
bgs., l.c.l., ex-whse or freight alld. E lb. .09 • —
wet-grd., rubber, bgs., c.l., works, frt. alld. E lb. .08 • —
bgs., l.c.l., ex-whse. or frt. alld. E lb. .08¾ • —
wallpaper, bgs., c.l., works, frt. alld. E lb. .08¾ • —
bgs., ex-whse or frt. alld E. lb. .09 • —
white, 5-10 microns, bgs., c.l., works, frt. alld. E ..... lb. .08¼ • —
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c higher.

Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 • .11
laminating grades, tankcars, works lb. .11 • .12
Mineral black, bgs., works lb. .0160 • .0673
Mineral oil, white tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy gal. .70 • —
non-ret. dms., l.c.l., same basis gal. .75 • —
tankcars, refy. gal. .54 • —
65-75 vis., non-ret. dms., c.l., same basis gal. .70½ • —
non-ret. dms., l.c.l., same basis gal. .75½ • —
tankcars, refy. gal. .54½ • —
NF, 80-90% vis., non-ret. dms., c.l., same basis gal. .71 • —
non-ret. dms., l.c.l., same basis gal. .76 • —
tankcars, refy. gal. .55 • —
135-138 vis., non-ret. dms., c.l., same basis gal. .77 • —
non-ret. dms., l.c.l., same basis gal. .82 • —
tankcars, refy. gal. .61 • —
145-155 vis., non-ret. dms., c.l., same basis gal. .83 • —
non-ret. dms., l.c.l., same basis gal. .88 • —
tankcars, refy. gal. .67 • —
USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .85 • —
non-ret. dms., l.c.l., same basis gal. .90 • —
tankcars, same basis gal. .69 • —
200-210 vis., non-ret. dms., c.l., f.o.b. refy gal. .875 .90
non-ret. dms., l.c.l., same basis gal. .925 —
tankcars, refy. gal. .69 .715
340-350 vis., non-ret. dms., c.l., f.o.b. refy gal. .92½ • —
non-ret. dms., l.c.l. gal. .97½ • —
tankcars, refy. gal. .76½ • —
(For dlvd. N.Y. prices add 2c. for c.l. and 3c. for l.c.l.).
Mineral orange, American, bbls., c.l., works lb. .16 • —
bbls., l.c.l., same basis lb. .17 • —
Mineral spirits, petroleum, odorless, tankcars, New Jersey gal. .29 • —
New York gal. .305 • —
Houston, Texas gal. .25 —
regular, tankcars, New Jersey and New York gal. .18 • —
Group 3 gal. .12875 • —
Houston, Texas gal. .145 —
140 F. flash, New York, New Jersey at terminal gal. .205 • —
Houston, Texas gal. .17 • —
Mink oil, dms. ..... lb. 1.75 • —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works lb. 6.30 • —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .13 • .13⅛
tanks, New York ..... gal. .15 • .16
Molybdated orange, bbls. lb. .49 • —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo 7.84 • —
325 mesh, ctns., works kilo 9.13 • —
Molybdenum trioxide, purif., dms., works lb. 1.25 • —
Tech., chemical, dms., works, basis Mo content lb. 1.61 • —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.60 • —
Molybdic acid, 84%, dms., works. lb. 1.15 • 1.25
Monoallylamine, dms., c.l., dlvd lb. .305 —
dms., c.l., dlvd. ..... lb. .995 • —
tanks, dlvd ..... lb. .96 • —
Monobutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½ • —
dms., l.c.l., same basis lb. .59 • —
tanks, same basis lb. .55 • —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 —
dms., l.c.l., works ..... lb. .56 • —
tanks, works lb. .54 • —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E lb. .10½ • —
dms., l.c.l., same basis ..... lb. .11½ • —
tanks, same basis ..... lb. .08¾ • —
Monochlorobenzene prices in the West 1¾c. higher.
Monoethanolamine, dms., c.l., dlvd. E lb. .27½ • —
dms., l.c.l., same basis ..... lb. .29 • —
tanks, same basis ..... lb. .25 • —
Monoethylalphanaphthylamine (see n-Ethyl-a-naphthylamine).
Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E, 100% basis lb. .38½ • —
dms., l.c.l., dlvd. E., 100% basis lb. .40 • —
tanks dlvd E., 100% basis lb .35 —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine).
Monoisopropanolamine, dms., c.l., dlvd. E lb. .27½ • —
dms., l.c.l., same basis ..... lb. .29 • —
tanks, same basis ..... lb. .25 • —
Monoisopropylamine, anhyd., dms., c.l., dlvd lb. .33½ • —
dms., l.c.l., same basis ..... lb. .35 • —
tanks, same basis ..... lb. .31 • —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis lb. .30 • —
tanks, 100% basis lb. .26 • —
30-35% soln., dms., c.l., frt. equald. 100% basis lb. .36 • —
30-35% soln., dms., l.c.l. frt. equald, 100% basis lb. .36½ • —
tanks, frt equald., 100% basis. lb. .26 • —
40% soln. dms. frt. equald., 100% basis lb. .33 • —
dms., l.c.l., frt. equald., 100% basis lb. .33½ • —
tanks, frt. equald, 100% basis lb. .26 • —
Monopentaerythritol, tech. bgs., c.l., dlvd lb. .29 • —
bgs., l.c.l. ..... lb. .30 • —
Monopotassium glutamate, dms., 4,000 lb lots, frt alld lb 3.05 • —
dms. 100-lb lots same basis lb 3.25 —
Monosodium glutamate, dms. dlvd lb. 1.02 • 1.07
Monosodium phosphate (see sodium phosphate monobasic)
Montan wax, Calif., refd., bgs ... lb. .29 .30
Imp., crude, Bohemian, bgs lb. .25 .26
German, bgs. lb .25 .26
Morphine, cns. 100-oz. f.o.b. works oz 12.35 • —
Morphine hydrobromide, cns., 100 oz., f.o.b. works oz 9.90 • —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works oz 9.90 • —
Morphine sulfate, USP, cns., 100-oz., f.o.b works oz 9.90 —

Test Samples

If you would like test samples for evaluating these CSC Aminohydroxy Compounds, or if you would like a technical representative to call, please complete and mail this coupon.

Nitroparaffins Department
COMMERCIAL SOLVENTS CORPORATION
260 Madison Avenue, New York 16, N. Y.

Please send me test sample of CSC's AMP
Please send me test sample of CSC's Tris Amino
Please have a technical representative get in touch with me
Please send me Technical Bulletins #5 and #6

Name
Company Title
Address
City Zone State

Morpholine, dms., c.l., dlvd. E	lb.	.55¼-	—
dms., l.c.l., dlvd. E	lb.	.56¾-	—
tanks, dlvd. E	lb.	.52¾-	—
Muriatic acid (see Hydrochloric acid).			
Musk, syn. ambrette, fib. dms., 100-lb lots	lb	4.40	4.90
cns., 25-lb lots	lb	4.50	5.00
Ketone, fib. dms., 100-lb lots	lb	4.60	5.10
cns., 25-lb lots	lb	4.70	5.20
Xylol, fib. dms., 100-lb lots	lb	1.26	—
cns., 25-lb lots	lb	1.40	—
Mustard seed, Danish yellow, bgs.	lb.	.09 -	.09½
Montana, yellow, bgs	lb.	.10½-	—
Oriental, bgs.	lb.	.09 -	—
Mustard, oil, syn., bots	lb.	1.60	1.85
Myristic acid, bgs.	lb.	.23¼-	.25¾
tanks	lb.	.22¼-	—
Myrrh gum, cs	lb.	.65	.75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).

Naphtha, petroleum, cleaner's (see Cleaner's naphtha).

Naphtha, VM&P, petroleum, tank-cars, New Jersey and New York	gal.	.19 -	—
Group 3	gal.	.13875-	—
Houston, Texas	gal.	.155 -	—
Naphthalene, crude, dom., 78°, tanks, f.o.b., frt. equald	lb.	.06¼-	.06½
Refd., indust., chipped, crushed, bgs., frt. equald	lb.	.14½-	—
tanks, same basis	lb.	.11¾-	—
Refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis	lb.	.15½-	—
cs., 50 lbs. c.l. same basis.	lb.	.15¾-	—
1-lb pkgs. c.l. same basis.	lb.	.18½-	—
a-Naphthol, dms., frt. alld	lb.	1.02 -	—
b-Naphthol, tech. flake, bbls., c.l., works	lb.	.34 -	—
bbls. l.c.l. works	lb.	.36 -	—
Naphthol, ITR, red toner, bbls., works	lb	5.00 -	—
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).			
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid)			
1-Naphthol-5-sulfonic acid (see L acid).			
1-Naphthol-5-sulfonic 8-amino acid (see S acid).			
2-Naphthol-6,8-disulfonic acid (see Gamma acid).			
Naphthol sulfonic mixed acid (see Cleve's acid).			
a-Naphthylamine, dms., frt. alld	lb.	.52 -	—
b-Naphthylamine, tech. flake, bbls., works	lb	1.60 -	—
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).			
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).			
2-Naphthylamine-1-sulfonic acid (see Tobias acid).			
2-Naphthylamine-6-sulfonic acid (see Broenner's acid).			
2-Naphthylamine-7-sulfonic acid (see F acid).			
Naringin, fib. dms.	lb.	8.50 -	—
Neatsfoot oil, 15° cold test, dms	lb	.29	Nom.
20° cold test, dms.	lb.	.28	Nom.
30° cold test, dms.	lb.	.27	Nom.
Neocinchophen, USP, dms., frt. adjusted	lb	7.00	8.00
Neomycin sulfate, fib. dms., 1-kilo basis activity gram.		.18 -	—
fib. dms., 100-999 gram lots, basis activity gram.		.25 -	—
Tech., fib. dms	gram	13½-	—
Neopentylglycol, dms., c.l., dlvd	lb.	.32 -	—
dms., l.c.l., same basis	lb	.33 -	—
Neroli, dms.	lb	4.75	—
Neroli oil, NF, French, bots	lb	425.00	575.00
Tunisian, bots.	lb	400.00	—
Nerolin, cns.	lb	2.45	2.85
Neville and Winther's acid, dms., frt. alld	lb.	1.50 -	—
Niacinamide (see Nicotinamide).			
Nickel acetate, bbls., dlvd.	lb.	.72 -	.79
Nickel carbonate, bbls., dlvd	lb.	.83 -	.90
Nickel chloride, bbls., dlvd.	lb.	.39½-	.47½
Nickel formate, bbls., ton lots, frt. alld	lb.	.78 -	.79
Nickel metal, electro cathodes, cs., works	lb.	.81¼-	—
Nickel nitrate, dms., frt. alld	lb.	.34½-	.36½
Nickel oxide, black, bbls.	lb.	.92 -	—
Green, bbls.	lb.	.91 -	—
Nickel sulfate, bgs., c.l., dlvd	lb.	.30 -	—
bgs., l.c.l., dlvd.	lb.	.30½-	.38
Nicotinamide, USP, 50-kilo, dms., frt. equald	kilo.	5.75 -	—
dms., smaller lots, same basis.	kilo.	5.85 -	6.05
Nicotinamide hydrochloride, 50-kilo dms., dlvd	kilo.	6.50	7.50
Nicotine sulfate 40% dealers, 50-lb. dms frt alld	lb	1.20	—
40% manufacturers, 500-lb. dms., frt. alld	lb	1.05 -	—
Nicotinic amide, USP (see Nicotinamide).			
Niger seed, bgs.	lb	10¼-	—
Nikethamide, cbys.	lb	5.00	—
Nitric acid, 36° Be., cbys., c.l., works E 100 lbs.		5.75	—
cbys., l.c.l., works E 100 lbs		6.05	6.85
38° Be., cbys., c.l., works E, 100 lbs		6.25	—
cbys., l.c.l., works E 100 lbs		6.55	7.35
40° Be., cbys., c.l., works E 100 lbs.		6.75	—
cbys., l.c.l., works E 100 lbs.		7.05	7.85
42° Be., cbys., c.l. works E, 100 lbs		7.25	—
cbys., l.c.l., works E 100 lbs.		7.55	8.35
58.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs.		3.90 -	—
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs		4.90 -	—
Nitric acid, CP, NF, consumer, cbys., extra, c.l., works	lb.	.18½-	—
cbys. extra, l.c.l. works	lb.	.20 -	—
5-pint bots. extra cs., c.l. same basis	lb.	22½-	—
5-pint bots. extra cs., l.c.l., same basis	lb.	.24	.25
dms. frt alld	lb.	.99 -	—
4-Nitro-2-aminophenol, tech., paste, dms., l.c.l., works	lb.	.64 -	—
m-Nitroaniline, cryst., dms., frt. alld	lb	1.15 -	—
Paste, dms. frt. alld., 100% basis		1.10 -	—
o-Nitroaniline, flaked, dms. t.l., frt. alld	lb.	.49 -	—
dms. t.l. frt alld	lb.	.51 -	—
o-Nitroaniline orange toner, bgs.	lb	1.50	—
p-Nitroaniline, c.l., t.l., dms., 20,000 lb. min., dlvd	lb.	.44½-	—
dms. l.c.l., same basis	lb.	.46½-	—
o-Nitroanisole, tech. tanks, frt alld.	lb.	.36 -	—
p-Nitroanisole, tech., solid, dms., frt. alld	lb.	.72 -	—
Nitrobenzene, dbl dist., dms., c.l., frt. alld	lb.	.13	—
dms., l.c.l., frt. alld.	lb.	.14 -	—
tanks, frt. alld.	lb.	.12 -	—
p-Nitrobenzoic acid, dms., c.l., t.l., works	lb.	.53 -	—
dms., l.c.l., works	lb.	.54 -	—
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works	lb.	.39½-	—
bbls., l.c.l., same basis	lb.	.42½-	—
18-25 cps., bbls., c.l., same basis.	lb.	.41½-	—
bbls., l.c.l., same basis	lb.	.44½-	—
250-400, 600-1,000 seconds, bbls., l.c.l., same basis	lb.	.44½-	.47½
Spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis	lb.	.44 -	—
bbls., l.c.l., same basis	lb.	.47 -	—
5-6 cps., 40-60 seconds, bbls., c.l. same basis	lb.	.43 -	—
bbls., l.c.l., same basis	lb.	.46 -	—
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but refurnable			
o-Nitrochlorobenzene, dms. c.l., frt. alld	lb.	.15 -	—
dms., l.c.l., same basis	lb.	.16 -	—
tanks, same basis	lb.	.13 -	—
p-Nitrochlorobenzene, dms.	lb.	.26 -	.27
2-Nitro-p-cresol, tech., dms., t.l	lb.	.71 -	—
dms., l.t.l.	lb.	.73 -	—
Nitroethane, dms., c.l., dlvd. E	lb.	.28½-	—
dms., l.c.l., dlvd. E	lb.	.30 -	—
tanks, dlvd E	lb.	.26 -	—
Nitroethane prices West of Rockies are 1c. higher.			
Nitrogen solutions, direct application, tanks, f.o.b. works	unit-ton.	1.64 -	—
Manufacturing type, same basis.	unit-ton.	1.32 -	—
Nitrogen tetroxide, indust., tankcars, f.o.b. Hopewell, Va	lb.	.065 -	—
Cyls., t.l., min 5 tons, same basis	lb.	.07½-	—
Cyls., l.c.l., t.l.l., same basis	lb.	.15 -	—
Nitrogenous process tankage, bulk, works	unit-ton	4.50	5.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago works.	unit-ton	3.50	—
(The foregoing price is per unit NH_3, plus 50c. per unit a.p.a., bulk, f.o.b. producers' works, Chicago.)			
Nitromethane, dms., t.l., dlvd. E	lb.	.26 -	—
dms., l.t.l., dlvd. E	lb.	.27½-	—
Nitromethane prices West of Rockies are 1c higher			
a-Nitronaphthalene, bbls., frt. alld.	lb.	.31 -	—
o-Nitrophenol, dms., works, frt. equald	lb.	.94 -	—
p-Nitrophenol, dms., c.l., frt. alld.	lb.	.45 -	—
dms., l.c.l., frt. alld	lb.	.47 -	—
1-Nitropropane, dms. c.l., frt. alld. E. of Rockies	lb.	.28½-	—
dms., l.c.l., same basis	lb.	.30 -	—
tanks, same basis	lb.	.26 -	—
1-Nitropropane prices West of Rockies are 1c. per lb higher			
2-Nitropropane, dms. c.l., frt. alld. E of Rockies	lb.	.18½-	—
dms., l.c.l., same basis	lb.	.20 -	—
tanks, same basis	lb.	.16 -	—
m-Nitrotoluene tech. dms. frt. alld.	lb.	.50 -	—
o-Nitrotoluene, dms. c.l., frt. alld	lb	.15 -	—
dms., l.c.l., frt alld.	lb.	16 -	—
tanks, frt. alld.	lb.	.13 -	—
p-Nitrotoluene, tech., cast, dms., c.l., works	lb.	27½-	—
dms., l.c.l., works	lb.	.28 -	—
flake, dms., c.l., t.l., works	lb.	27½-	—
dms. l.c.l. works	lb.	.28 -	—
m-Nitro-p-toluidine, dms.	lb.	1.25	—
Nonylphenol, dms. c.l, frt. alld.	lb.	.22½-	—
dms., l.c.l., frt. alld	lb.	.23½-	—
tanks, frt. alld	lb.	.20	—
Nonylphenol prices on shipments to Western States are 2c. higher.			
Noscapine, cns.	oz.	8.00 -	—
Nutmegs, East Indian, whole, bgs.	lb.	1.20 -	—
West Indian, bgs.	lb.	.98 -	.99
Nutmeg oil, USP dist., East Indian, cns	lb	8.00	12.00
West Indian, cns.	lb	9.00	12.00
Nux vomica, bls.	lb.	.20	—
Powd., bbls., bxs.	lb.	.20	.22

O

Ocher (see Iron oxide yellow, nat.).			
Ocotea cymbarum oil, dms	lb.	.44 -	.47
Octane, indust., tanks, Bayonne, N.J	gal.	.20	—
1-Octanol, tech., dms. c.l., dlvd., Zone 1	lb.	.41½-	—
dms., l.c.l., dlvd. Zone 1	lb.	.43½-	.44½
tanks, dlvd. Zone 1	lb.	.37½-	—
Octyl alcohol, perfumers grade, bots.	lb.	1.60	3.25
Octyl alcohol, tech. (see 1-Octanol, tech).			
n-Octyl-decyl alcohol blend, tanks, dlvd	lb.	.19 -	—
tert-Octylamine, dms. c.l. t.l., f.o.b. works	lb.	.54½-	—
dms. l.c.l. same basis	lb	.55 -	—
Octylphenol, bgs., c.l., works	lb.	22½-	—
bgs., l.c.l., works	lb.	.23 -	—
tanks, works	lb	.21½-	—
Octylphenol in dms., 11c. higher.			

OILS

Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liquid, dms.	lb.	.16 -	.16¼
tanks	lb.	.14¼-	.14½
Oleic acid, dbl.-dist. (white), dms.	lb.	.18½-	.21
tanks	lb.	.16 -	—
S. D., dms.	lb.	.17½-	.20
tanks	lb.	.15 -	—
Oleum (see Sulfuric acid, fuming).			
Olibanum gum, siftings, cs	lb.	.15	.20
Tears, cs.	lb	.22	.30
Olibanum oil, bots	lb.	5.00	7.65
Extra fine, bots	lb	8.00	9.50
Olive oil, edible, dms., spot, ex whse.	gal.	2.40	- 2.45
Olivine, crude, works	ton.	12.00	—
20 mesh, works	ton.	15.00	—
100 mesh works	ton.	20.00	—
Opium, USP, cns., 25-lbs., f.o.b. works	oz.	19.20 -	—
gran., cns., 50 lbs., same basis.	oz.	21.65 -	—
powd., cns., 50 lbs., same basis.	oz.	21.65 -	—
Orange oil, expressed, USP, Calif., cns., dms	lb.	.70 -	.90
Calif., sweet., cns., dms	lb.	.60 -	—
Florida, cns., dms	lb	.40 -	.45
Messina, cns.	lb.	3.25	5.00
West Indian, bitter, cns., dms	lb.	2.50 -	3.50
Orange peel, bitter, Haitian, bls	lb.	.18	.20
Sweet	lb.	.28	.30

ORANGE PIGMENTS

Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Origanum oil, Spanish, cns	lb.	1.80	2.30
Orris root, Florentine, bls	lb.	.55 -	—
powd., bbls., bxs	lb.	.65 -	—
Verona, bls	lb.	.35 -	—
powd., bbls., bxs	lb.	.45 -	—
Orthoanisidine (see o-Anisidine).			
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde)			
Orthochloroaniline (see o-Chloroaniline).			
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).			
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).			
Orthochlorophenol (see o-Chlorophenol).			
Orthocresol (see o-Cresol).			
Orthocresotinic acid (see 2,3-Creosotic acid).			
Orthodichlorobenzene (see o-Dichlorobenzene).			
Orthonitroaniline (see o-Nitroaniline).			
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).			
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).			
Orthonitrophenol (see o-Nitrophenol).			
Orthonitrotoluene (see o-Nitrotoluene).			
Orthophenetidine (see o-Pheretidine)			
Orthophenylphenol (see o-Phenyl phenol).			
Ortho-tertiary amylphenol (see o-tert-Amylphenol)			
Orthotolidine (see o-Tolidine base).			
Orthotoluidine (see o-Toluidine).			
Ouabain, USP, bots.	gram	3.00	4.00
Ouricury, wax, crude, bgs	lb.	.50 -	.52
Refd., pure, bgs	lb.	.53 -	.55
Oxalic acid, bgs., c.l., works	lb.	.18 -	—
bgs., 10,000 lb. lots, works	lb.	.19 -	—
bgs., smaller lots, works	lb.	.20½-	—
Oxalic acid in drums is priced ½c. per lb higher.			
b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld	lb.	.912 -	—
Dyestuff manufacture, dms., same basis	lb	1.03	1.14
Oxyquinolin sulfate, cns., 100-lb. lots, works	lb	4.75	5.00
cns., smaller lots, works	lb	4.92	5.17

P

Palm oil, clarif., dms	lb.	.14½-	.15½
tanks, New York	lb.	.11¾-	—
Palm oil acid, double dist. dms.	lb.	.16½-	.19
tanks	lb.	.14 -	—
single dist., dms.	lb.	.16 -	.18½
tanks	lb.	13½-	—
Palmarosa oil, cns.	lb.	5.25 -	6.50
Papain, powd., bots.	lb.	3.25	10.00
Papaverine hydrochloride, nat. or syn., USP cns., 25-oz. to 100-oz. lots	oz.	5.00	—
cns., smaller lots	oz	5.05	5.20
Papaverine sulfate, nat., or syn., USP, cns	oz.	7.10 -	7.35
Paprika, Bulgarian, bgs	lb.	.32 -	—
Hungarian, bgs.	lb.	.33 -	—
Spanish, bgs.	lb.	.33 -	.38
Para-aminobenzoic acid (see p-Aminobenzoic acid)			
Parachlorobenzoic acid (see p-Chlorobenzoic acid)			
Paramethylphenylcinchonic acid (see Neocinchophen).			
Paranitrobenzoic acid (see p-Nitrobenzoic acid).			
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).			
Para-aminophenol (see p-Aminophenol).			
Parachlorophenol (see p-Chlorophenol).			
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).			
Para-anisidin (see p-Ansidine)			
Parachloraniline (see p-Chloraniline).			
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).			
Paracresol (see p-Cresol).			
Paradibromobenzene (see p-Dibromobenzene).			
Paradichlorobenzene (see p-Dichlorobenzene).			
Para toner, red, bbls	lb.	1.30 -	—
Chlorinated, kgs.	lb.	1.41 -	—
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy.	lb.	.0655-	.0660
Fully refd., 122°-124°F., ASTM,	lb.	.0765-	—
125°-127°F., ASTM, tanks, refy.	lb.	.0765-	—
130°-132°F., ASTM, tanks, refy.	lb.	.0765-	—
132°-134°F., ASTM, tanks, refy.	lb.	.0765-	—
135°-137°F., ASTM, tanks, refy.	lb.	.0765-	—
AMP temperatures are an arbitrary 3°F higher than ASTM			
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy gal.		.17½-	—
Paraffin wax (see Paraffin)			
Paraformaldehyde 91% flake, bgs., c.l., frt. alld	lb.	.10 -	—
bgs., l.c.l. frt alld	lb.	.12 -	.13
91% powd., bgs., c.l., ex whse	lb.	.1715-	—
bgs., l.c.l., ex whse	lb.	.1865-	—
USP-X, fib. dms., c.l. f.o.b., works	lb.	.19 -	—
fib. dms., 1,000-lb. lots, same basis	lb.	.20 -	—
fib. dms., smaller lots, same basis	lb.	.21½-	—
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd. E	lb.	.14 -	—
55-gal. dms., l.c.l., dlvd. E	lb.	.15½-	—
tanks, dlvd. E	lb.	.11½-	—
Paranitraniline (see p-Nitroaniline).			
Paranitrochlorobenzene (see p-Nitrochlorobenzene)			
Paranitrotoluene (see p-Nitrotoluene).			
Paranitrophenol (see p-Nitrophenol).			
Paraphenetidine (see p-Phenetidine)			
Paraphenylenediamine (see p-Phenylenediamine).			
Paraphenylphenol (see p-Phenylphenol).			
Para-tertiary-amylphenol (see p-tert-Amylphenol).			
Para-tertiary butylphenol (see p-tert-Butylphenol)			
Parathion ethyl, dms. frt. alld	lb.	.84	—
Parathion prices 2c. per lb. higher in West.			
Paratoluenesulfonamide (see p-Toluenesulfonamide)			
Passion flower herb, bls	lb	.35	.40
Patchouli oil, imp., cns.	lb.	5.00 -	5.60
Peach kernel oil, USP (see Apricot kernel oil).			
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd E of Rockies	lb.	1.00	—
Peacock blue price 1c. higher W. of Rockies.			
Peanut meal, old process, 45%, bgs., f.o.b. mills	ton.	64.00	- Nom.
solvent, same basis	ton.	62.00	- Nom.
Peanut oil, crude, tanks, f.o.b. mills.	lb.	.19 -	—
Refd., dms.	lb.	.24¼-	.24½
tanks	lb.	.22¼-	—
Pectin, dom., NF, citrus, powd., 100 kilos, f.o.b. shipt. pt	kilo.	4.52 -	—
Pelargonic acid, dms., c.l., dlvd. E	lb.	.27½-	—
ton lots, same basis	lb.	.28½-	—
tanks, same basis	lb.	.25 -	—
Penicillin, potassium, cryst., bulk, 1,000,000 units.		.018 -	—
Penicillin, procaine, cryst., bulk, 1,000,000 units.		.020 -	—
Pennyroyal oil, USP imported, cns.	lb.	2.35 -	2.80
Pentachlorophenol, 50-lb. bgs., c.l., t.l., works, frt. equald	lb.	.21 -	—
bgs., less than ton-lots, same basis.	lb.	.29 -	—
bgs., c.l., t.l., 2,000 lb. minimum, same basis	lb.	.22½-	—
Pentachlorophenol in dms. 1c. higher.			
Pentaerythritol, tech., bgs., c.l., dlvd.	lb.	.29 -	—
bgs., l.c.l., dlvd	lb.	.30 -	—
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).			
Pentane, indust. tanks, Tex. refy.	gal.	.14 -	—
Pentobarbital, dms., 100 lbs. or more	lb.	6.00 -	—
Pepper, black, Malabar, bgs	lb.	.45½-	—
Lampong, bgs.	lb.	45 -	—
Red, Funtuas, bgs.	lb.	.30 -	.31
Japanese, Hontoka, bgs	lb.	.40 -	—
Santaka, bgs.	lb.	.30 -	.31
Sudanese, bgs.	lb.	.52 -	.56
White, Muntok, bgs	lb.	.57 -	—
Peppermint leaves, dom., USP, bls., dms	lb.	No stocks.	
imp., USP, dms.	lb.	.85 -	90
Peppermint oil, nat., dms	lb.	4.00 -	4.40
Redist., USP, dms	lb.	4.25 -	4.65
Perchloroethylene, dms., c.l., or t.l., dlvd	lb.	.13½-	—
dms., l.c.l., dlvd.	lb.	.15¼-	—
tanks, dlvd.	lb.	.11¾-	—
tanktruck, 1,000 gal. min. dlvd	lb.	.12¼-	—
Peri acid, dry, bbls., frt. alld	lb.	1.60 -	—
Paste, bbls. frt. alld	lb.	1.55 -	—
Peru balsam, dms	lb.	1.15 -	1.50
Persic oil, USP (see Apricot kernel oil).			
Petitgrain oil, South American, cns., dms	lb.	2.45 -	—
Petrolatum, NF, cream, dms., c.l., refy	lb.	.085 -	.08625
dms., l.c.l., dlvd	lb.	.11125-	.11250
tanks, refy	lb.	.0625-	.06375
NF, extra amber, dms., c.l., refy.	lb.	.07625-	—
dms., l.c.l., dlvd	lb.	.1025-	—
tanks, refy.	lb.	.05375-	—
NF, soft yellow, dms., c.l., refy	lb.	.07625-	—
dms., l.c.l., dlvd.	lb.	.1025-	—
tanks, refy.	lb.	.05375-	—
USP, lily white, dms., c.l., refy	lb	.09125-	.09675
dms., l.c.l., dlvd	lb.	.1175-	.1225
tanks, refy.	lb.	.08875-	—
USP, snow white, dms., c.l., refy.	lb.	.09625-	—
dms., l.c.l., dlvd.	lb.	.1225-	—
tanks, refy.	lb.	.07375-	—
Full tankwagons of petrolatum are ¼c. more per lb. than tankcars.			
Petroleum pitch (see Asphalt, petroleum).			

PETROLEUM PRODUCTS

Petroleum product quotations are listed individually. For example, prices on Petroleum mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret dms., c.l., works	lb.	.16½	18¾
non-ret. dms., l.c.l., works	lb.	.17½	19
tanks, works	lb.	.14½	17
50-55% sulfuric content, non-ret. dms., c.l., works	lb.	.16	—
non-ret. dms., l.c.l., works	lb.	.17 -	—
tanks, works	lb.	.13 -	—
o-Phenetidine, dms., c.l., frt. alld. E of Rockies	lb.	.91 -	—
dms. l.c.l., same basis	lb.	.93 -	—
p-Phenetidine, dms., c.l., frt. alld.	lb.	1.05 -	—
dms. same basis	lb.	1.08 -	—
Phenobarbital, USP, dms., 100-lbs., frt. alld	lb.	2.85 -	3.25
Phenobarbital-Sodium (see sodium phenobarbital).			
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld E. of Rockies	lb.	.16½-	—
non-ret. dms., l.c.l., same basis.	lb.	.17½-	—
tanks, same basis	lb.	.14½-	—
82-84% (cresol 16-18%), non-ret. dms., c.l., same basis	lb.	.16¼-	—
non-ret. dms., l.c.l., same basis.	lb.	.17¼-	—
tanks, same basis	¾lb.	.14¼-	—
39° C., or above, tar dist., non-ret. dms., c.l., same basis	lb.	.17¾-	—
non-ret. dms., l.c.l.	lb.	.18¾-	—
tanks, same basis	lb.	.15¾-	—
Phenol, USP, syn., dms., c.l., t.l., frt. alld.	lb.	.18¼-	—
dms., l.c.l., same basis	lb.	.20¼-	—
tanks, same basis	lb.	.16¼-	—
Phenolphthalein, USP or yellow, 250-lb. dm., 2,000 lbs., frt. alld	lb.	1.30 -	—
250-lb dm., same basis	lb	1.35 -	—
Phenothiazine drench, fib dms., t.l., dlvd	lb.	.46 -	—
fib. dms., ton lots, dlvd	lb.	.49 -	—
NF, fib. dms., t.l., dlvd	lb.	.45 -	—
fib. dms., ton lots, dlvd	lb.	.48 -	—
Phenyl acetate, dms. 100-lb. lots, works	lb.	.50	—
Phenyl salicylate (see Salol).			
Phenylacetaldehyde, soln., 50% bots.	lb.	2.15	2.35
100% bots.	lb.	3.80	4.00
Phenylacetic acid, pure, cryst., cns.	lb.	1.25	1.75
di-Phenylalanine, dms., 1-kilo	kilo.	65.00 -	—
l-Phenyl-3-carbethoxy pyrazolone-5, fib dms., 200-lb. lots, dlvd. E	lb.	3.45 -	—
fib dms. smaller lots, dlvd. E	lb.	3.80 -	—
N-Phenyldiethanolamine, dms., c.l., dlvd. E	lb.	.50 -	—
dms., l.c.l., dlvd. E	lb.	.51½-	—
tanks, dlvd. E	lb.	.47½-	—
m-Phenylenediamine, dms., c.l., t.l., frt. alld	lb.	1.08 -	—
l.c.l., l.t.l., same basis	lb.	1.10 -	—
o-Phenylenediamine, coml. fib. dms., 100 to 1,000 lbs., works.	lb.	1.70 -	1.80
p-Phenylenediamine, tech., dms, works	lb.	1.55 -	—
Phenylethanolamine, dms., c.l., works	lb.	.75½-	—
dms., l.c.l., same basis	lb.	.76¼-	—
Phenylethyl acetate bots.	lb.	1.25	1.40
2-Phenylethyl alcohol, extra, dms.	lb.	1.14	1.50
Standard, dms	lb.	1.10	1.60
b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld	lb.	1.50	—
dms. smaller lots, frt alld	lb	1.70	1.85
Phenylethylphenyl acetate, bots	lb	4.00	4.25
Phenylglyconic acid (see Mendelic acid).			

Phenylhydrazine 97%, 450-lb. dms.	lb	1.45	—
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd E.	lb	1.80	—
fib. dms., smaller lots, dlvd E	lb	2.10	—
o-Phenylphenol, dms., t.c.l., works	lb	.48	.50
p-Phenylphenol, bgs., c.l., works	lb	.38½	—
bgs., l.c.l., works	lb	.43	—
Philippine copal gum, pale, chips, bgs	lb	.23¼	.27
nubs, bgs.	lb	.33¼	.37
seeds, bgs.	lb	.20	Nom.
sorts, bgs.	lb	.20	.24
Phloroglucinol, coml., fib dms., works	lb	6.40	—
CP, bots., works	lb	17.75	—
Tech., fib dms. works	lb	10.45	—
Phloxin red toner (see Eosin red toner).			
Phosgene, ret. cyls. works	lb	15½	—
Phosphate defluorinated (see under D).			
Phosphate rock, Curacao, Atlantic ports New Orleans	ton	46.50	—
Phosphate rock, Florida, land pebble run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines.	short-ton	4.989	5.398
68-70%, b.p.l., bulk, c.l., same basis	short-ton	5.849	5.858
70-72%, b.p.l., bulk, c.l., same basis	short-ton	6.429	6.438
74-75%, b.p.l., bulk, c.l., same basis	short-ton	7.329	7.338
76-77%, b.p.l., c.l., bulk, same basis	short-ton	8.219	8.228
Above Florida prices are based on fuel oil at 2.52 per bbl. and labor at $1.64			
Phosphoric acid, food grade, 75%, chys. c.l. works, E., frt. equald	100 lbs.	7.00	—
chys. t.c.l. same basis	100 lbs.	7.25	7.73
tanks, t.w., works	100 lbs.	5.60	—
80% chys. c.l. frt equald	100 lbs.	7.85	—
chys. t.c.l., works	100 lbs.	8.10	9.35
tanks, t.w., works	100 lbs.	6.00	—
NF, 85%, chys., c.l., works	100 lbs.	8.50	—
chys., t.c.l., works	100 lbs.	8.75	9.00
tanks, t.w., works	100 lbs.	6.65	—
Phosphorus, amorph., red, dms., t.l., works	lb.	.55	—
dms., smaller lots, works	lb.	.56	.57
white (yellow), solid dms., c.l., works, frt. equald	lb.	.20	.20½
dms. t.c.l. works, frt. equald	lb.	.21½	—
tanks, works, frt equald	lb.	.19	—
Phosphorus oxychloride, dms., c.l., works	lb.	.14	—
dms. t.c.l., works	lb.	.15	—
tanks, works frt equald	lb.	.12½	—
Phosphorus pentasulfide, powd., dms. c.l. works	lb.	.13½	—
dms. t.c.l. works	lb.	.14½	.15½
Solid, dms., c.l. works	lb.	.11½	—
dms. t.c.l. works	lb.	.12½	.13½
Phosphorus pentoxide, dms., c.l., works	lb.	.1375	.1475
dms. t.c.l. works	lb.	.1475	.1675
Phosphorus sesquisulfide, dms., cs., c.l., works	lb.	.38	—
dms. t.c.l. works	lb.	.39	.40
Phosphorus trichloride, dms., c.l., works	lb.	.14	—
dms., t.c.l., works	lb.	.15	—
tanks, works	lb.	.12½	—
Phthalic anhydride bgs., c.l., works, frt. equald	lb.	.15½	—
bgs., l.c.l., same basis	lb.	.16½	—
tanks, same basis	lb.	.15	—
Phthalimide 97-98%, dms., frt. alld	lb.	.65	—
Phthalocyanine blue, full strength, bbls. dlvd E of Rockies.	lb	2.90	—
Resinated, bbls., same basis	lb.	2.75	—
Water dispersable, bbls., same basis	lb	1.52	—
Phthalocyanine blue prices 1c. higher W. of Rockies			
Phthalocyanine green toner, bbls., works	lb.	3.35	—
Resinated, bbls.	lb.	3.00	—
Water dispersable, bbls.	lb.	1.71	—
Phthalocyanine green prices 1c. higher W. of Rockies			
Phthalylsulfacetamide, fib. dms., 1-000-lb. lots or more	lb.	5.00	—
NF fib. dms.	lb.	5.20	—
a-Picoline dms. c.l., works, frt. equald	lb.	.46	.48
dms., t.c.l., same basis	lb.	.46½	.49
tanks, same basis	lb.	.43	.46
b-Picoline 98% dms., t.l., works.	lb.	1.05	—
dms., t.c.l., same basis	lb.	1.15	—
tanks, same basis	lb.	.95	—
b,g-Picoline 5°C dms., c.l., works.	lb.	.32½	—
dms. t.c.l., works	lb.	.33	—
g-Picoline, dms. t.o.b., works	lb.	1.60	—
tanks, t.l. same basis	lb.	1.50	—
Picric acid, NF bbls.	lb.	.85	—
Tech., bbls	lb.	.50	—
Pigment green B, kgs	lb.	1.55	—
Pilocarpine hydrochloride, USP, bots	oz.	4.75	5.25
Pilocarpine nitrate, USP, bots., vials.	oz.	4.65	5.15
Pimento, Jamaican, bgs.	lb.	.69	.72
Mexican, bgs.	lb.	.61	—
Pimento berry oil, NF, dms.	lb.	3.75	9.25
Pimento leaf oil, crude, ens	lb.	2.50	2.60
Pine oil, dest.-dist., dms., t.c.l. works	lb.	.15	—
dms. t.c.l. ex whse. New York.	lb.	.173	—
Steam-dist. dms. ex whse., New York	lb.	.185	—
dms., dlvd	lb.	.188	—
Pineneedle oil, Siberian (see Abies Siberica oil).			
Pink root, bls.	lb.	2.25	—
Piperazine anhyd., dms. c.l., frt. alld. E	lb.	1.80	—
dms., t.c.l., frt. alld. E	lb.	1.85	—
Piperazine citrate, 36% dms., 1,000 lbs. or more, frt. alld	lb.	1.33	—
Piperazine dihydrochloride, 51%, dms. 1,000 lbs or more, frt alld	lb.	1.29	—
Piperazine hexahydrate, 44%, dms., 1,000 lbs. or more, frt. alld	lb.	.90	—
dms., 200-900 lbs., frt. alld	lb.	.93	—
Piperazine phosphate, 42%, dms., 1,000 lbs or more, frt. alld	lb.	1.11	—
Piperidine, dist., 98% min., 5 dms. or more, t.c.l., t.l.l., f.o.b. works	lb.	2.65	—
1-4 dms., same basis	lb	2.70	—
dms., c.l., t.l., frt. equald	lb.	2.55	—
Piperonyl butoxide dms. dlvd E.	lb.	4.50	5.05

PITCHES

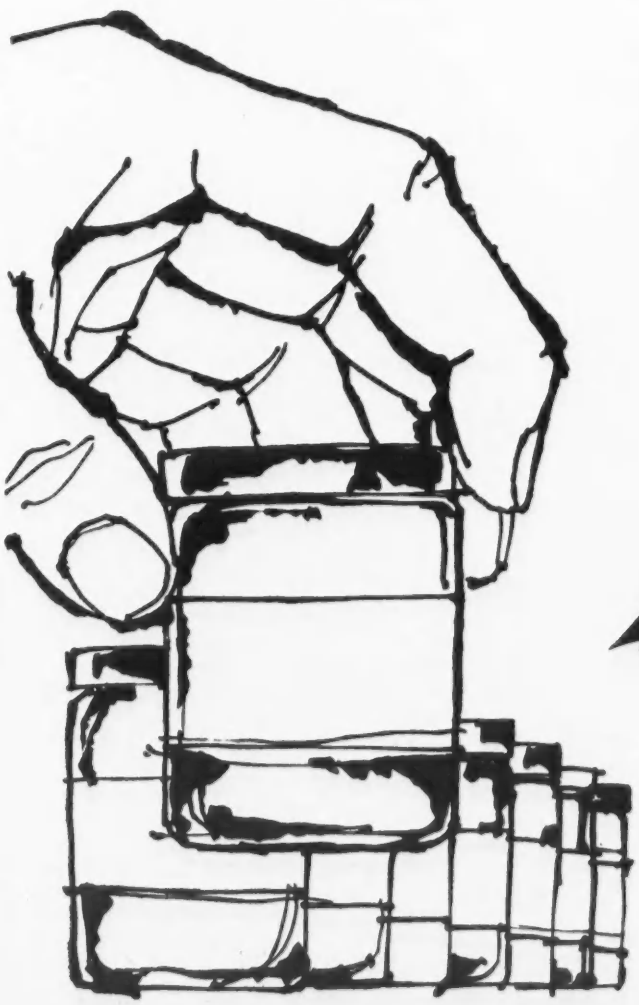
Pitch quotations are listed individually. For example, prices on Pitch, coaltar, may be found in the C's under Coaltar pitch.

Platinum metal, works	oz.	81.00	85.00
Pleurisy root, bls.	lb.	.45	.50
Podophyllum resin, NF, dms.	lb.	12.50	15.50
Poke root, bls.	lb.	.19	.23
Polymyxin, bots., bulk., 50 billion units or more	1,000,000 units.	.53	—
bulk, bots., 25-50 billion units.	1,000,000 units.	.54	—
bulk, bots., 1-25 billion units.	1,000,000 units.	.56	—
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works	lb.	.42	—
dms., 10,000-20,000-lb. lots, works.	lb.	.44	—
dms., smaller lots, works	lb.	.47	.49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works	lb.	.42	—
dms., 10,000-20,000-lb. lots, works	lb.	.44	—
dms., smaller lots, works	lb.	.47	.49
Pontianak copal gum, chips, bgs.	lb.	.23½	.26
Nubs, bgs.	lb.	.38	.44
Poppy seed, Argentine, bgs.	lb.	No stocks.	
Dutch, bgs.	lb.	.13	—
Danish, bgs.	lb.	.12	—
Polish, bgs.	lb.	.12½	—
Turkish, bgs.	lb.	.11	—
Potash, caustic, liq., 45% basis, dms., c.l., works	100 lbs.	4.25	—
dms., t.c.l., same basis	100 lbs.	5.25	—
tanks, same basis	100 lbs.	3.70	—
reg., flake, 88-92% dms., c.l., same basis	100 lbs.	9.55	—
dms., t.c.l., same basis.	100 lbs.	11.05	—
solid, 88-92%, dms., c.l., works	100 lb.	9.10	—
dms., t.c.l., works	100 lbs.	10.60	—
Potassium acetate, NF, 200-lb. dm., f.o.b. works, E	lb.	.31	—
Potassium bicarbonate, USP, gran., dms	lb.	.22	—
powd., dms.	lb.	.24	—
Potassium bichromate, gran., bgs., c.l., t.l., works	lb.	.18	—
bgs., l.c.l., works	lb.	.18½	.19¾
Potassium bichromate in dms. ¾c. higher.			
Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald	lb.	.37	—
100-lb. bgs., 5,000 lbs., 1 shipt., same basis	lb.	.38	—
100-lb. bgs., smaller lots, same basis	lb.	.40	—
Potassium borohydride, powd., dms., works	lb.	16.00	22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb lots			
Potassium bromate, 200-lb. dms., c.l. frt. alld	lb.	.49	—
Potassium bromide, USP, gran., bbls., kgs	lb.	.39	.40
Potassium carbonate, dom., NF, gran., bbls., dms	lb.	.22	.24
Dom. tech., powd., bbls., dms	lb.	.21	.22
Dom., calcinated, bgs., c.l. works.	100 lbs.	8.50	—
bgs., t.c.l., same basis	100 lbs.	9.55	—
Dom., hydrated, 83-85%, bgs., c.l., works	100 lbs.	7.10	—
bgs., t.c.l., works	100 lbs.	8.15	—
Potassium chlorate, cryst, dms., c.l., works	lb.	.12¼	—
dms., t.c.l., works	lb.	.13½	.14½
Powd., dms., c.l., works	lb.	.12¾	—
dms. t.c.l., works	lb.	.14	.15
	works lb.	.12¼	—
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works	lb.	.16¾	—
NF, gran., 25-lb metal dms	lb.	.36	—
NF powd., dms., 2,000 lbs. or more, works	lb.	.17¼	—
Potassium chloride, indust., 99.9% KCL, bulk, c.l., works	ton	29.00	—
bgs., c.l., works	ton	30.00	—
99.3% KCL, bulk, c.l., works.	ton	28.00	—
bgs., c.l., works	lb	33.00	—
USP, cryst., dms.	lb.	33.00	—
USP, gran., dms.	lb.	.21	.23
USP, powd., dms.	lb.	.24	.26
Potassium chloride, agricultural (see Potassium muriate).			
Potassium chromate, tech., dms., works	lb	.50	.51
Potassium citrate, NF gran., 250-lb. dms., f.o.b. works E	lb.	43	—
powd. 250-lb dms. same basis.	lb.	46	—
Potassium cyanide, dms., 20,000-lb. lots or more, dlvd. E	lb.	.42½	—
dms., 5,000-19,999-lb. lots, works	lb.	43	—
dms., 2,000-4,999-lb. lots	lb.	.43½	—
dms., 1,999-lb. lots or less	lb.	.44½	.46½
Potassium dichromate (see Potassium bichromate).			
Potassium ferricyanide, dms., lots, works	ton	.50	—
dms., smaller lots works	lb.	.65	—
Potassium ferrocyanide, dms., lots	ton	.24½	—
dms., smaller lots	lb.	.29	—
Potassium fluoborate, fib dms., c.l., works	lb.	.30	—
fib dms., t.c.l., works	lb.	.31	—
Potassium fluoride, dms., works	lb.	.36	.37
Potassium gluconate, 100-lb dm., f.o.b. works E	lb.	1.67	—

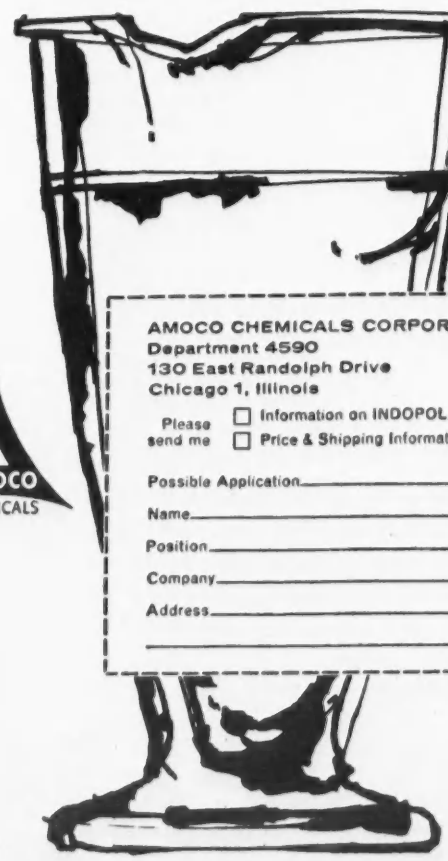
AMOCO INDOPOL POLYBUTENES

EIGHT VISCOSITY GRADES READY FOR IMMEDIATE DELIVERY IN DRUM OR TANK CAR QUANTITIES. SAMPLES, INFORMATION ON USES AND APPLICATIONS AND TECHNICAL ASSISTANCE FROM POLYBUTENE SPECIALISTS AVAILABLE ON REQUEST.

INDOPOL Grade	Viscosity S.S.U.
L-10	114 at 100° F.
L-50	516 at 100° F.
L-100	1,040 at 100° F.
H-35	275 at 210° F.
H-100	1,070 at 210° F.
H-300	3,000 at 210° F.
H-1500	15,000 at 210° F.
H-1900	20,500 at 210° F.



AMOCO CHEMICALS



AMOCO CHEMICALS CORPORATION
Department 4590
130 East Randolph Drive
Chicago 1, Illinois

Please send me ☐ Information on INDOPOL ☐ Price & Shipping Information

Possible Application_____
Name_____
Position_____
Company_____
Address_____

Potassium guaiacol sulfonate, NF, dms lb 2.10 2.30

Potassium hydroxide, tech (see Potash caustic)

Potassium hydroxide, USP, pellets, 100-lb dms 1 to 100-dm. lots lb 33½ .38

Potassium hypophosphite, NF fib dms 1,000 lb lots lb 1.38 —

Potassium iodide, USP, cryst, gran., 250-lb. dm., f.o.b. works lb 1.55 - —

Potassium manure salt, min 20% K₂O, bulk c.l. works, unit ton 17 .1765

Potassium metabisulfite gran. dms., lb 16 —
Powd., dms lb 27 —

Potassium muriate, standard, bulk, c.l., works unit-ton .36 - .38
bagged 60% minimum K₂O, same basis ton 26.60 -27.80

Potassium muriate, gran., bulk, c.l., works unit-ton .39 - .41
bagged, 60% minimum K₂O, same basis ton 28.40 -29.60

Inside prices apply to material contracted for prior to July 1, 1961.

Outside prices apply to material contracted for after that date but also for delivery during the current month.

Potassium nitrate, NF cryst., bbls., 20-ton lots 100 lbs 17.00 —
bbls., smaller lots 100 lbs 18.00 19.00
gran., bgs., 20-ton lots 100 lbs 9.50 —
bgs., smaller lots 100 lbs 11.00 12.00
powd., bgs., 20-ton lots 100 lbs 10.50 —
bgs., smaller lots 100 lbs 12.00 13.00

Potassium oxalate, neutral, tech., fine gran. powd., 300-lb. dm. f.o.b. works E lb .32 —

Potassium pentaborate, gran. dms., c.l. works ton 219.50 —
dms., ton lots ex whse 100 lbs 17.48 - —
dms., smaller lots, ex whse 100 lbs 18.73 —

Powdered potassium pentaborate $10 per ton higher.

Potassium perchlorate, dms., c.l., works lb .18½ —
dms., l.c.l., works lb .19 .20

Potassium permanganate, comml., kgs. works lb .25 .33
USP, dms., works lb .29 .35

Potassium pyrophosphate, tetrabasic, dms., works lb .1475- 1575

Potassium prussiate, red (see Potassium ferrocyanide)

Potassium prussiate, yellow (see Potassium ferro-cyanide).

Potassium silicate, electrical grade, 30° Be, 1:2.0, dms., c.l., works 100 lbs. 6.50 —
dms., l.c.l., 5 dm. lots or more, works 100 lbs 7.25 7.65
tanks, works 100 lbs 6.15 —
40.5° Be 1:2.1, dms., c.l., works, 100 lbs. 5.95 - —
dms, l.c.l., 5 dm. lots or more, works 100 lbs 6.70 - —
tanks, works 100 lbs 5.60 - —

Glass grade, bgs., c.l., works 100 lbs. 17.30 -18.00
bgs., l.c.l., works 100 lbs. 17.80 - —

Soln., 29° Be, 1:2.5, dms., c.l., works 100 lbs. 4.95 - —
dms, l.c.l., 5-dm. lots or more, works 100 lbs 5.70 - —
tanks, works 100 lbs 4.50 - —

Potassium silicofluoride, bgs. works lb .09½ .10

Potassium silicofluoride in drums, 0.4c per lb higher

Potassium stannate, dms, frt. alld. lb .870 - .943

Potassium sulfate, min. 50% K₂O, agricultural, bulk, c.l., works unit-ton .70½- .72½

Inside price applies to tonnage contracted for prior to July 1, 1961.

Outside price applies to tonnage contracted for after that date but also for delivery during the current month.

Potassium sulfate, NF VII, cryst., dms. lb .31 33
NF VII, gran, 400-lb. dm lb .18 —
NF VII powd, 400-lb dm lb .17 —

Potassium sulfocyanate, NF cryst., (see Potassium thiocyanate)

Potassium thiocyanate, NF cryst., dms, works lb .96 .98
Tech., dms, works lb .77 .79

Potassium titanate, ctns, c.l. works lb 16¼ —
ctns, 5-ton lots, works lb .16½ —
ctns, 1-ton lots or less, works lb .16¾- —

Potassium-magnesium sulfate, basis 40% K₂SO₄ and 18% MgO, bulk works, base price ton 13.45 - —
bulk, works, July forward ton 14.00 - —

Potassium-sodium tartrate, NF gran. or powd., 250-lb. dms., c.l., works E lb 42½- —
250-lb. dms, 5,000-lb lots, same basis lb 43 —
250-lb. dms, same basis lb 43½- —

Potassium-titanium fluoride, fib, dms, works lb .39 .40

Potassium-zirconium flouride, fib, dms, c.l., works lb .50 —
fib dms, l.c.l., works lb .52½ .55

Pregnenolone, bots gram No prices.

Pregnenolone acetate, bots gram No prices.

Procaine hydrochloride, USP, antibiotic grade, dms, 2,000-lb lots, frt. alld. lb 2.10 2.25

Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt. alld lb 2.40 —
dms, 500 lbs lb 2.45 —
dms, 100 lbs lb 2.50 —

Progesterone, USP, bots gram No prices.

Pregnenolone acetate, bots gram No prices.

Propenyl guaethol, dms lb 24.30 27.00

b-Propriolactone, tech., dms., c.l., f.o.b. works lb .47½ —
dms., l.c.l., l.t.l., same basis lb .48½ —
tanks, same basis lb .45 —

Propionic acid, syn, pure, dms, c.l., dlvd lb .23¼ -
dms, l.c.l., dlvd. lb .24¾- —
tanks, dlvd lb .20¾- —

n-Propyl acetate, dms., c.l., dlvd. lb .14¾- —
dms., l.c.l., dlvd lb .16¼ —
tanks, dlvd lb .12¼ —

n-Propyl alcohol, dms, c.l., dlvd lb .14 .15
dms., l.c.l., dlvd lb .15½ 16½
tanks, dlvd lb 11½ 12½

n-Propyl gallate, dms., 100 to 2,000-lb lots, works lb 3.90 4.40

n-Propyl-p-hydroxybenzoate, USP, dms lb 2.30 2.40

Propyl thiouracil, bots., 50 kilo lots or more kilo 55.00 —
bots, smaller lots kilo 55.10 -55.30

n-Propylamine, dms., c.l., dlvd lb 1.24 —
dms, l.c.l., same basis lb 1.255 —

n-Propylene dichloride, consumers', dms, c.l. dlvd E lb .0845- —
dms., l.c.l., same basis lb .0995- —
tanks, same basis lb .07 —

Propylene dichloride, prices in West 1c. higher, same basis

Propylene glycol, indust., dms., c.l., dlvd E lb .15 —
dms., l.c.l., same basis lb .16¾- —
tanks, same basis lb .12½- —
USP, dms, c.l., dlvd E lb .17 —
dms, l.c.l, same basis lb .18¾- —
tanks, same basis lb .14½- —

Propylene glycol methyl ether, dms, c.l., dlvd lb .20 —
dms., l.c.l., same basis lb .21 —
tanks, same basis lb .18½- —

Propylene oxide, dms, c.l., dlvd E, lb .17 —
dms, l.c.l., dlvd E lb .18½- —
tanks, dlvd E lb .14½ —

Psyllium seed, black, bgs lb .42 .45
Blonde, bgs lb .18 .20
Husks, bgs lb .45 .48

Pumice, dom, grd, coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb .03¾ 04¼
bgs., smaller lots lb .03¾- —

Imp., Italian, silk-screen, coarse, bgs., ton lots lb .06½- —
fine, bgs, ton lots lb .04 —
sun dried, coarse, bgs ton 60.00 —
fine, bgs. ton 60.00 -70.00

Pumpkin seed, ngs lb .25 .26

Pyrethrins, syn (see Allethrin).

Pyrethrum flowers, fine grd, 0.9% pyrethrins, bgs., ton, works lb .50 - —
Powd., 1.3% pyrethrins, bgs., ton works lb .71 - —

Pyrethrum liquid, 20 1 basis (2 grams pyrethrins per 100cc odorless base), dms, works gal 9.60 9.80

100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal 45.90 -46.90

Pyrethrum oleoresin, dewaxed, 20% dms., works lb 11.00 11.35
purif, 20%, dms, works lb 11.00 11.35

Pyridine, denat, dms, c.l. works and frt. equald gal 2.77 - —
dms., l.c.l., same basis gal 2.80 - —

Refd., 2° non-ret, dms., c.l., same basis lb .75½- —
dms., l.c.l., same basis lb .76 - .76½
tanks, same basis lb .71 - —

Potassium persulfate, dms., c.l., works lb .17½ —
dms, l.c.l. works lb .18 .21

Pyridoxine hydrochloride, USP, dms., f.o.b. works kilo 90.00 - —

Pyrites, Canadian 48-50% S, mines, long ton 4.50 5.00

Pyrocatechol (see Catechol)

Pyrogallic acid, NF (see Pyrogallol)

Pyrogallic acid, tech, mbls, 100 lbs., f.o.b. works lb 3.50 - —

Pyrogallol, NF, 100-lb dms lb 3.90 - —

Pyroxylin, USP, bots lb 9.50 —

Q

Quassia, chips lb .10 —

Quicksilver (see Mercury, metal)

Quince seed, bgs lb 1.55 - 1.75

Quinidine sulfate, USP, 1,000-oz. dm oz. .78½- —

Quinine, NF, 1,000-oz. dm. oz. .3750- —

Quinine bisulfate, USP, 1,000-oz dm. oz. .28 —

Quinine hydrochloride, 1,000-oz dm. oz. .3650- —

Quinine sulfate, USP, 1,000 oz dm. oz. .3150- —

Quinoline, dms, c.l. frt equald lb 50¾ —
dms., l.c.l., same basis lb 51¼ —
tanks, same basis lb .50 —

R

R salt paste, dms., c.l., t.l., frt. alld., 100% basis lb .98 - —
Powd., dms., c.l., t.l., frt. alld, 100% basis lb 1.08 - —

Rapeseed oil, dms. lb .18 - .18¼
tanks lb .16 - —

Rare earth oxalate, NF, 45-50%, bgs., works lb 1.15 - —

Rauwolfia serpentina, root, powd., bbls, dms lb 1.00 1.20

Red carmine, No. 40 (see Carmine).

Red oil (see Oleic acid)

RED PIGMENTS

Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red, precipitate (see Mercuric oxide, red)

Red toner, Lake C, alizarine, bbls., works lb 1.30 - —

Reserpine, cryst, bots gram 1.25 - —

Resorcinol, tech, grade, bgs., c.l., works, frt. equald lb 77½- —
bgs., l.c.l., same basis lb 78½- —

Resorcinol in dms, 1c. per lb more.

Resorcinol monoacetate, NF, dms. lb 2.50 —
USP, powd., dms., works lb 2.95 —

Rhatany, root, bgs lb .14 .16

Rhodamine red, toner, molybdated, PMA, kgs, works lb 6.00 —
Tungstated PTMA, works, kgs lb 6.60 —

Rhodinol, 5-lb cans lb 42.00 51.00
Synthetic lb 14.00 16.00

Rhubarb, root, India, whole, bgs lb .25 —
powd, bgs lb .35 —

Riboflavin, USP, fib dms., kilo or more, dlvd, kilo 36.00 - —

Riboflavin-5 phosphate-sodium, fib, dms, kilo or more, dlvd, kilo 104.70 - —

Rice bran oil, clarified, dms, t.c.l. lb .15½- —
tanks, dlvd, E lb .14 - —

Ricinoleic acid (see Castor oil acids, split)

Rochelle salt (see Potassium sodium tartrate)

Roofing pitch (see Coaltar pitch, roofing)

Rose oil, nat, Bulgarian, bots lb 1,152.00- —
Turkish, bots., otto lb 600.00 -700.00
absolute lb 145.00 - —

Rosemary oil, Spanish, NF, cns., dms lb 1.15 - 1.20
Spanish, tech., cns., dms lb .80 .95

Rosin gum and wood (see Naval Stores in Protective Coatings market)

Rotenone, fib dms., works unit-lb. .10½- —

Resin, 25-45% fib dms, works, unit-lb. .10½- —

Rottenstone, bgs, 5-ton lots, ex-whse lb .03¾- —
bgs, ton lots, same basis lb .04¼- —

Rubber solvent petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal .19 —
Group 3 gal .13875 —
Houston, Texas gal .155 —

Rue oil, bots lb 2.75 - 3.00

Rutin, NF, fib, dms., 10 kilo lots, kilo 11.00 - —
fib, dms., 5 kilo lots kilo 11.50 - —
fib, dms., 1 kilo kilo 13.00 - —

Ryania, 100%, powd., bgs., c.l., works lb .22 - —
bgs., l.c.l., same basis lb .24 - —

S

S acid, bbls., works lb 3.25 - —

Sabadilla seed, activated, ground with lime, bbls lb .42 - .44

Saccharin, calcium, fib, dms., 1,000-lb lots, works lb 2.50 - —

Saccharin, USP, gran, soluble, dms., 1,000-lb. lots lb 1.50 - —
dms., smaller lots lb 1.60 - —
USP, powd., soluble, dms., 1,000-lb. lots lb 1.55 - —
dms., smaller lots lb 1.65 - —
USP, powd., insoluble, dms., 1,000-lb. lots lb 1.53 - —
dms., smaller lots lb 1.63 - —

Safflower oil, dms., New York lb .21 - .2230
tanks, Atl. coast lb .19 - —

Saffron, Mancha Superior, tins lb 19.50 - —

Safrol, dms lb .65 - —

Sage, Dalmatian, bgs lb .40 - —
Greek, cns. lb .15 - —
Italian, cns. lb .18 - —

Sage oil, clary, bots. lb 11.00 -12.00
Dalmatian, cns lb 2.85 3.25
Spanish, cns lb 1.25 1.75

Sal soda (see Soda sal).

Salicylaldehyde, dms, c.l., t.l., f.o.b., plant, frt. equald lb 1.23 - —
dms, l.c.l., same basis lb 1.25 - —

Salicylamide, 100-lb dms lb 1.05 - —

Salicylic acid, tech, fib dms., c.l., t.l., dlvd lb .40½- —
fib dms, l.c.l., dlvd lb .44¾- —

USP, cryst., 200-lb. fib dms., 1,000 lbs. or more lb .51¾- —
200-lb. fib. dms, less than 1,000 lbs lb .54¾- —
100-lb. fib. dms., 1,000 lbs. or more lb .53¾- —
100-lb. fib dms, less than 1,000 lbs lb .56¾- —

USP, pwd., 100-lb. fib. dms., 1,000 lbs. or more lb .58¾- —
100-lb. fib dms., less than 1,000 lbs lb .61¾- —

Salol, NF, gran., bbls, kgs lb 1.20 - —
Powdered salol 25c per lb higher.

Salt rock, paper bgs, c.l 100 lbs 1.09 - —

Salt, table vacuum common, fine, paper bgs, c.l 100 lbs. 1.34 - —

Saltcake, dom, bulk, works, 100% Na_2SO_4 basis ton 28.00 - —

Saltpeter (see Potassium nitrate)

Sandalwood, E. Indian, chips, bgs., lb .53 - .66
powd. dms lb .75 - .76

Sandalwood oil, cns. lb 27.00 -30.00

Sarcosine, tech, tanks, f.o.b., works, frt equald lb 1.03 —
lb No stocks.

Sassafras oil, artif., dms lb .45 —
Nat., dom, dms lb 1.40 - —

Savory oil, cns lb 4.75 - —

Schaeffer's salt paste, dms., frt alld, 100% basis lb .85 - —
Powd, bgs, frt alld, 100% basis, lb .95 - —

Scopolamine hydrobromide, USP, 10 oz. lots, bots oz 15.00 - —

Sebacic acid, CP, bgs, c.l., works, lb .69¼- —
bgs., l.c.l., works lb .71½- —
Purified, bgs, c.l., works lb .65½- —
bgs., l.c.l., works lb .67½- —

Seidlitz mixture, fib dms, 5,000-lb. lots lb .30½- —
fib dms., smaller lots lb .31 - .33

Selenium, powd., 99½%, dms., dlvd, lb 6.50 - —

Senega, root, bls lb 2.40 - —

Senna leaves, Alexandria, whole and half, bls lb .20 - .22
siftings lb .16 - —

Tinneveley, No. 1, bls. lb .26 - .30
No. 2, bls lb .18 - —
No. 3, bls lb .14 - —
pods, bls. lb .28 - —
powd., bbls., bxs lb .17 - —

Serpentaria, root, bls lb 7.00 - 7.50

Sesame oil, USP, dms., l.c.l lb .37 - .38

Sesame seed, Colombian, bgs lb .15½- —
Lebanese, hulled, bgs lb .19 - —
Nicaraguan, hulled, bgs lb .21 - —
nat., bgs. lb .15 - —
Salvadorian, Nat, bgs lb .16 - —

Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb .46 - —
bbls., 1,500-lb. lots lb .47 - —

Bonedry shellacs prices for less than 1,500-lb lots 1c. per lb higher for all packages.

Shellac, bleached, refd., bgs., 1,200-lb. lots lb .56 —
bgs., less than 1,200-lb. lots lb .57 - —

Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb .35 - .36
lemon No. 2, bgs. 10-bg. lots, lb .34 - .35
superfine, bgs., 10-lb. lots lb .32 - .33

Shellac in 1 to 10-bg. lots 1c per lb more.

Shingle stain oil, tar distillate, dms., c.l., works gal .37 - —
dms., l.c.l., works gal .48 - —
tanks, works gal .25 - —

Sienna, pigment, burnt, paper bgs., c.l., works lb .06½- .18½
paper bgs., l.c.l., works lb .06¾- .17¾
Raw, paper bgs., c.l., works lb .06¾- .16¾
paper bgs, l.c.l., works lb .07 - .17

Silica, amorph., dry-grd, 325 mesh, bgs., c.l., works ton 25.00 - —
bgs, l.c.l, works, ex whse, ton 45.00 -55.00

Silica, hard-quartz, 99½%, 325 mesh, bgs, c.l. works ton 20.00 - —
bgs., l.c.l. works ton 25.00 - —
99½%, 140 mesh, bgs., c.l., works ton 15.00 - —
bgs., l.c.l. works ton 20.00 - —

Silicon tetrachloride, tech., dms., c.l., works lb .20 - —
tanks, works lb .15 - —

Silver bullion, ingots, cs Troy oz. .91⅜- —

Silver cyanide, bots, 1,000-oz. tots, oz. .94¾- —
bots, 500-oz. lots oz. .95¼- —
bots, 100-oz lots oz. .96¼- —

Silver nitrate, CP, cryst., bots., 1,000 to 4,000 oz., f.o.b. works oz. .67¼- —
bots, 250-500 oz., same basis, oz. 67¾- —

USP granular silver nitrate 4c. per oz higher.

Silver proteinate, mild, USP, 16-oz. bots oz. 1.46 - —

Snakeroot oil, Canada, cns lb 40.00 -43.00

Soapbark, crushed, bls. lb .40 - —
Powd., bls. lb .50 - —
Whole, bls. lb .30 - —

Soda ash, dense, 58%, paper bgs., c.l., works, 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 - 4.77
bulk, c.l., works 100 lbs. 1.60 - —

Soda ash, light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts. —
bulk, c.l., works 100 lbs. 1.55 - —
100 lbs. 3.95 - 4.78

Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 5.20 - —
liq., 50% sellers' tanks, works, dry basis 100 lbs. 2.90 - —
50% rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
Liq. 73%, sellers' tanks, works, dry basis 100 lbs. 3.00 - —
liq. 73% rayon type, sellers' tanks, works, dry basis lb. 3.00 - 3.10
solid, 76% dms., c.l., works, 100 lbs. 4.80 - —

Soda, sal, conc, bgs., c.l., works, 100 lbs. 2.50 - —
bgs, smaller lots, works 100 lbs. 2.80 - —

Sodium acetate, annyd., bgs., c.l., dlvd. E lb. .14½- —
bgs., l.c.l., same basis lb. .16½- —

NF, 60% gran, dms, c.l., works, lb. .15½- —
dms, l.c.l., works lb. .17½- —

Sodium alginate, NF, white powd., dom. 300 lbs or more lb. 1.02 - —

Sodium p-aminosalicylate, dms., 100-lb lots or more, frt. adjusted lb. 1.90 - —

Sodium antimoniate, bgs, c.l. dlvd, E lb. .27½- —
bgs., l.c.l. dlvd E lb. .29 - —

Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm. less than ton lots, f.o.b. works lb. .24 - —
ton lots or more same basis, lb. .23½- —

Sodium arsenite, 94% soluble pink powder, 75% arsenious oxide, dealers, 100-lb dms., ton lots or more, f.o.b., works lb. .18½- —
1,600-1,900 dms., same basis lb. .19 - —
100-500 dms, same basis lb. .20 - —

Sodium ascorbate, dms., 100-kilos., dms., f.o.b. works kilo. 5.60 - —
less than 100-kilos kilo. 5.85 - —

Sodium benzoate, tech., dms., c.l., t.l., frt. alld lb. .35 - —
dms, l.c.l. same basis lb. .39 - —

USP, 100-lb. dms., ton lots, same basis lb. .43 - —
100-lb. dms., 1,000-lb lots, same basis, lb. .45 - —

Sodium bicarbonate, USP, gran., bgs., c.l. works 100 lbs. 2.95 - —
bgs, l.c.l. works 100 lbs. 3.85 - —

USP, powd., bgs. c.l., works, 100 lbs. 2.55 - —
bgs, l.c.l. works 100 lbs. 3.45 - —

Sodium bichromate, gran., ngs., c.l., t.l., works lb. .13 - —
bgs., l.c.l. works lb. .13½- .14¼

Sodium bichromate in dms ¾c. per lb higher

Sodium bifluoride, fib, dms., c.l., works, frt. equald lb. .19½- —
fib, dms., l.c.l., same basis lb. .2025- —

Sodium bisulfate bulk c.l. works, 100 lbs. 2.00 —
dms c.l., frt. equald 100 lbs. 3.00 3.60
dms, l.c.l. frt equald 100 lbs. 3.50 4.10

Sodium bisulfite annyd., bgs., c.l., works 100 lbs 5.00 - —
bgs., l.c.l., works 100 lbs 5.45 - —
Soln., 35° bbls. c.l., works 100 lbs. 1.70 - —
bbls. l.c.l works 100 lbs 2.20 - —

Sodium borate (see Borax)

Sodium borohydride, powd., dms., c.l., works lb. 8.00 - —
dms., l.c.l., works lb. 11.75 -14.00
stabilized water soln., 12% NaBH, 100% basis, tanks, works lb. 7.50 - —
dms., same basis lb. 11.50 -13.00

Pelletized sodium borohydride $1 per lb higher in 1,000-lb lots.

Sodium bromide, USP, gran., dms., works lb. .40 - —

Sodium carbonate, cryst, monohydrated (see Soda, sal)

Sodium carbonate, monohydrated, bgs., l.c.l., works 100 lbs. 3.50 - —
bgs., c.l., works 100 lbs 3.10 - —

Sodium carboxymethyl cellulose (see CMC).

Sodium chlorate, cryst., 350-lb dms., c.l., works lb. .09 - —
dms., l.c.l., works lb. .09½- .10¼

Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.

Sodium chloride, tech, (see Salt).

Sodium chloride, USP, gran., bgs, lb. .05 - —

Sodium chlorite, tech., dms., c.l., works lb. .58 - —
dms, 20-dm lots or more, works lb. .66 - —
dms., smaller lots, works lb. .70 - .73

Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms, l.c.l., works lb. .28 - —

Sodium chromate, anhyd, fib, dms., c.l., t.l., works lb. .14¾- —
fib dms, l.c.l., works lb. .15¼- .16¼

Tetrahydrate, bgs., c.l., t.l., works, lb. .1015- —
bgs, l.c.l. lb. .1065- .1190

Sodium citrate, anhyd., 200-lb dm., f.o.b. works E lb. .62 - —
NF VIII, gran, bgs., c.l., same basis lb. .26 - —
USP XIV, gran, bgs., c.l., same basis lb. .29 —

Sodium citrate, USP, powd, prices ½c higher.

Sodium cyanate, dms, 1,000-lb lots, works lb. .65 —
dms, smaller lots, works lb. .90 1.10

Sodium cyanide, briquettes or gran., 97 percent min., dms., dlvd., E. of Rockies, 20,000-lb lots lb. .183 - —
dms., same basis, 5,000 to 19,999-lb. lots lb. .203 - —
dms., same basis, 2,000 to 4,900-lb. lots lb. .208 - —
dms., same basis, 1,999-lb. lots and under lb. .218 - —

Sodium cyclamate, 100-lb dm., f.o.b. works lb. 1.95 - —

Sodium diacetate, anhyd., (9-41% acetic acid, dms., c.l., works lb. .18 —
250-lb dms, c.l., works lb. .18¾- —

Tech, 33-35% acetic acid, dms., t.c.l., works lb. .15 —
250-lb dms, t.c.l. works lb. .15¾- —

Sodium dimethyl dithiocarbamate, 40% soln, dms, c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., l.c.l., t.l.l., same basis lb. .47 - .53
tanks, same basis lb. .38 - —

Sodium ferrocyanide, bgs., 10-ton lots lb. .13½- —
bgs, smaller lots lb. .14¾- —

Sodium fluoride, white, 97%, fib, dms., c.l., works, frt. equald lb. .1390- —
fib, dms., t.c.l., works, frt. equald lb. .1465- —

Sodium formate, bgs., c.l., works 100 lbs. 7.05 - —
bgs, l.c.l., ex whse 100 lbs. 8.65 - —

Sodium gentisate, 100-lb. fib dms. lb. 5.50 - —

Sodium gluconate, refd., 250-lb. dm., f.o.b works E lb. .84 - —

Tech, bgs, c.l. t.l., same basis lb. .34 - —

Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 - 2.50

25% soln. in oil, dms, 50 lbs. or less, f.o.b. shipping point, lb. 2.20 - —
dms., 50-99 lbs. same basis lb 1.77 - —
dms., 100-999 lbs., same basis lb. 1.20 - —

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Sodium hydride, dms., 1,000 lbs. or more, same basis ... lb. .95 - —
Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite, dms., c.l., frt. alld. lb. 23½ - —
dms., l.c.l., frt. alld. ... lb. 25¾ - —
Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots, lb. 23½ - .26
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms., 1,000-lb. lots ... lb. .99 - —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb. dms., f.o.b. works ... lb. 2.13 - —
Sodium lauryl sulfate, dms., c.l., dlvd ... lb. .20½ - —
dms., l.c.l., dlvd. ... lb. .21½ - —
tanks, dlvd. ... lb. .19½ - —
Sodium lignin sulfonate, bgs., c.l., works ... 100 lbs. 4.25 - —
l.c.l., bgs., works ... 100 lbs. 4.75 - 5.25
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate, octahydrate, gran. bgs. c.l. works ton 210.00 - —
bgs., ton lots, ex whse 100 lbs 8.30 - —
bags, smaller lots, ex whse. 100 lbs. 9.61 -11.61
Tetrahydrate bgs. c.l., works ton 210.00 - —
bgs., ton lots, ex whse 100 lbs. 14.83 - —
bgs., smaller lots, ex whse 100 lbs. 16.08 -18.08
Sodium metallic, bricks, c.l., works, lb. .21 —
Fused, 18,000-lb lots or more, works lb. .19½ - —
tanks, works lb. .17 - —
Sodium metaliuate, bbls., frt. alld. lb. .62 - —
Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt 100 lbs. 11.10 - —
bgs., l.c.l., same basis 100 lbs. 11.85 - —
dms., c.l., same basis 100 lbs. 11.70 - —
dms., l.c.l. same basis 100 lbs. 12.45 - —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs 5.70 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs. 6.05 - —
dms., c.l., works ... 100 lbs. 6.20 - —
dms. l.c.l., works ... 100 lbs 6.55 - —
Pentahydrate, bgs., c.l., works 100 lbs. 4.45 - —
bgs., l.c.l., works ... 100 lbs 4.80 - 6.75
dms., l.c.l., works ... 100 lbs 4.95 - —
dms., l.c.l. works 100 lbs 5.30 - 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb. 1.02 - 1.21
Cryst., dms., works, frt. alld lb. .84 - .88
Sodium monoglutamate (see Monosodium glutamate)
Sodium monohydrate (see Sodium carbonate monohydrated).
Sodium naphthionate, bbls. ... lb. .77 - —
Sodium nitrate, dom., crude, bgs., c.l., works ton 48.00 - —
bulk c.l., works ton 44.00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse. ton 48.00 - —
bulk c.l., same basis ton 44.00 - —
Sodium nitrite, USP, bbls., c.l., works, frt. equald 100 lbs. 9.40 - —
bbls., l.c.l., same basis 100 lbs. 11.40 - —
Sodium orthosilicate, conc., dms., c.l., works 100 lbs 6.70 - —
dms., l.c.l., works 100 lbs 7.05 - 7.65
Hydrated flake, bbls., c.l., works 100 lbs 5.65 - —
bbls., l.c.l., works ... 100 lbs 7.60 - 7.90
Sodium oxalate, 88%, bgs., works 100 lbs. 12.35 - —
99% bgs., works 100 lbs. 15.40 - —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate)
Sodium para aminosalicylate (see Sodium p-aminosalicylate)
Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald lb. .26 - —
dms., l.c.l. same basis lb. .27½ - .34
Pellets, dms., c.l., same basis lb. .26 - —
dms., c.l., same basis lb. .27½ - .34
Powd., dms., c.l. same basis lb. .25 - —
dms., l.c.l. same basis lb. .26½ - .33
Sodium pentabarbital, USP, dms., 100 lbs. or more lb. 6.00 —
Sodium perborate NF, tech., bgs., c.l., works lb. .137 - —
bgs., l.c.l., works ... lb. .152 - .215
Sodium peroxide, dms., c.l., t.l., dlvd E. of Miss lb. .21½ - —
dms., l.c.l. same basis lb. .22 - .22½
Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 - —
Sodium phenosulfonate, USP, LX, gran., dms lb. .52 - .53
NF powd. dms lb. .55 - .56
Sodium phosphate, dibasic, anhyd., bgs c.l. frt equald 100 lbs. 8.10 - —
bgs l.c.l. same basis 100 lbs 8.50 - 9.55
Sodium phosphate, dibasic, cryst., bgs., c.l., t.l., frt. equald, 100 lbs. 4.75 - —
bgs. l.c.l., frt. equald 100 lbs. 5.15 - 5.90
Duohydrate, bgs., c.l., frt. equald, 100 lbs. 7.75 - —
bgs. l.c.l., same basis 100 lbs. 8.25 - —
Monobasic, anhyd bgs., c.l., frt. equald 100 lbs. 9.15 - —
bgs., l.c.l., same basis 100 lbs. 9.55 -10.15
Tribasic anhyd., bgs., c.l., frt. equald 100 lbs. 9.15 - —
bgs. l.c.l., frt. equald 100 lbs. 9.60 -10.20
Sodium phosphate in dms 60c. to 80c. higher than bgs
Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 - .20½
Sodium picramate, tech., paste, dms. f.o.b. works, frt. equald lb. .90 - —
Sodium propionate, any quantity, dms. dlvd E of Rockies. lb. .34½ - —
Prices W of Rockies 3c. per lb more
Sodium prussiate yellow (see Sodium ferrocyanide)
Sodium pyrophosphate, acid, bgs., c.l. works, frt equald 100 lbs. 11.25 - —
bgs., l.c.l., same basis 100 lbs. 12.00 -12.50
Ferric, dms., c.l., t.l., works lb. .36 - —
dms. l.c.l. works lb. .37 - .39
Tetrabasic, anhyd., bgs., c.l., works frt. equald 100 lbs. 7.38 - —
bgs., l.c.l., same basis 100 lbs. 8.13 - —
bulk, hopper cars, same basis. 100 lbs. 6.83 - —
Sodium salicylate USP dms., 1,000-lbs or more lb. 78½ - —
dms. less than 1,000 lbs. dms. lb. .81½ - —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 - —
l.c.l., dlvd. zone 1 ... 100 lbs. 4.10 - 4.35
dlvd zone 2 ... 100 lbs 4.35 - 4.60
dlvd zone 3 ... 100 lbs 4.75 - 4.90
dlvd zone 4 ... 100 lbs 5.35 - 5.60
Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La and Miss south of 31°; Tex E. of 100°; S of 31° Fla.; also Me., N. H. and Vt in which there are special county zones: Davenport Ia. and St Louis; (2) Ark E of 98° Ga., Iowa (except Davenport) Minn., Mo. (except St Louis) Neb. E. of 98° N. C., S. C., Tenn and Tex N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No of 31°; (3) Ark W of 96° Kan., Neb W. of 98° N D., Okla., S. D., Tex., W of 100° (including Wichita Falls excluding El Paso); (4) Ariz. Colo. Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

Sodium sesquisilicate, anhyd., bgs., c.l., t.l., works 100 lbs. 5.70 - —
dms., c.l., t.l., works 100 lbs 6.20 - —
Hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs. 5.35 - —
dms., c.l., works 100 lbs. 5.50 - —
dms. 6,000-19,900 lb. lots works, 100 lbs. 5.85 - —
Sodium silicate, liq., 40° Be., 1:3.2, turbid dms., c.l., works, 100 lbs. 1.65 - —
dms., l.c.l., works 100 lbs 1.90 2.40
tanks, works ... 100 lbs. 1.20 —
47° Be. 1:2.9, turbid, dms., c.l., works 100 lbs. 2.25 —
dms., l.c.l., works 100 lbs. 2.60 3.45
tanks, works 100 lbs 1.90 —
52° Be. 1:2.4, turbid, dms., c.l., works 100 lbs. 2.65 —
dms., l.c.l., works 100 lbs 3.00 3.50
tanks, works ... 100 lbs. 2.30 - —
Solid, 1.3.2, bgs., works ton 67.50 - —
Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., l.c.l., works lb. .725 —
Sodium silicofluoride in dms. 0.4c. per lb. higher
Sodium stannate, dms., works, frt. alld. E lb. .736 - .892
Sodium sulfa drugs (see Sulfa name).
Sodium sulfaniiate, bbls., works lb. .22 - —
Sodium sulfate, NF VII, dried, powd., dms lb. .22½ - —
Tech., anhyd. bgs., c.l., dlvd E. ton 36.00 - —
Tech., detergent, rayon grade, bgs., c.l., works ton 38.00 - —
bulk, c.l., works ton 34.00 - —
USP, cryst., fib dms. ... lb. .17½ - .18

Sodium sulfhydrate, flake, 70-72%, dms c.l. works, frt. equald lb. .07¼ - —
dms., l.c.l. same basis lb. .08¼ - —
Liq. 40-44% tanks works, 100% basis ton 130.00 —
Sodium sulfide flake, dms., c.l., works, E., frt equald lb. .06 - —
dms. l.c.l., same basis lb. .07 - —
Fused, bbls. c.l. works, E., frt. equald lb. .05½ - —
bbls. l.c.l. same basis lb. .06½ - —
Sodium sulfite, anhyd., tech., bgs., c.l., works 100 lbs. 3.50 - —
bgs. t.l. same basis 100 lbs 4.00 - —
Powd., bgs., c.l., works 100 lbs. 7.55 - —
bgs. l.c.l. same basis 100 lbs 7.95 - —
Sodium sulfocyanide CP (see Sodium thiocyanate).
Sodium tetraborate (see Borax).
Sodium tetrasulfide, liq., 40%, dms., c.l., works frt equald lb. .04½ - —
dms., l.c.l. same basis lb. .05½ - —
Sodium thiocyanate, purified, cryst., 250-lb dms lb. .80 - —
Tech. anhyd. dms., 1 ton lots or more, works lb. .367 - —
dms., less than ton lots, works lb. .387 - —
Sodium thiosulfate NF cryst. bbls. lb. .13½ - —
Tech., anhyd. 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 7.75 - —
100-lb. bgs. l.c.l., l.t.l., frt. equald 100 lbs. 8.15 - —

Sodium thiosulfate, photograde, 64-lb. bgs., c.l., t.l., frt. equald, lb. .0775 - —
64-lb bgs. l.c.l. l.t.l., frt equald lb .0815 —
Tech., pentahydrate, photo grade, 100-lb bgs., c.l., t.l., frt. equald 100 lbs. 4.95 —
100-lb bgs., l.c.l., l.t.l., frt. equald 100 lbs 5.20 —
Sodium titanate, ctns. c.l. works, lb 14¼ —
ctns. 5-ton lots works lb .14½ —
ctns., 1-ton lots or less works lb .14¾ —
Sodium trichloroacetate, 90%, 100-lb dms. c.l. frt alld E. lb. .35 —
50-lb dms., c.l., frt. alld. E lb. .35½ —
10-lb cns., c.l., frt alld E lb .42 —
Prices on Sodium trichloroacetate W of the Rockies are 1¾c. per pound higher.
Sodium tripolyphosphate, bgs., c.l. works, frt. equald 100 lbs. 7.73 - —
bgs., l.c.l., same basis ... 100 lbs. 8.48 - —
bulk, hopper cars, same basis. 100 lbs. 7.18 - —
Sodium tungstate, tech., kgs. dlvd. E lb. 1.32 - —
Sodium-ammonium phosphate, purif., cryst., dms., works lb .52 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).

HARDWORKING JEFFERSON CHEMICALS

PROPYLENE GLYCOL

Industrial and U. S. P. Grades

PROPYLENE GLYCOL

SPECIFICATIONS

INDUSTRIAL GRADE:

Specific gravity, 20/20°C	1.0375 min. 1.0390 max.
Acidity as acetic, wt.%	0.005 max.
Water, wt.%	0.2 max.
Color, Pt-Co scale	10 max.
Ash, wt.%	0.005 max.
Boiling range, ASTM, °C	185-189

U.S.P. GRADE:

(Same as specifications for Industrial Grade with the following exceptions:)

Boiling range, ASTM, °C	186-189
Acidity as acetic, wt. %	0.003 max.
Chlorides as Cl, wt. %	0.0001 max.
Sulfate	None
Arsenic as As_2O_3, ppm	1 max.
Heavy metals as Pb, ppm	5 max.

SELECT PROPERTIES

Boiling point, 760 mm.	187.4°C.
Flash point (open cup)	225°F.
Melting point	<–60°C.
Molecular weight	79.09
Specific gravity, 20/20°C	1.0381
Viscosity, 20°C.	60 centipoise
Weight, 20°C.	8.62 lbs./gal.

Select Properties same as for Industrial Grade Propylene Glycol

DIPROPYLENE GLYCOL

SPECIFICATIONS

Specific gravity, 20/20°C	1.020 min. 1.025 max.
Acidity as acetic, wt.%	0.01 max.
Water, wt.%	0.1 max.
Color, Pt-Co scale	15 max.
Boiling range, ASTM, °C	222-238

SELECT PROPERTIES

Boiling point, 760mm	231.8°C.
Flash point (open cup)	280°F.
Viscosity, 20°C.	107 centipoise
Weight, 20°C.	8.5 lbs./gal.
Molecular weight	134.17
Specific gravity, 20/20°C.	1.0252
Melting point	<–60°C.

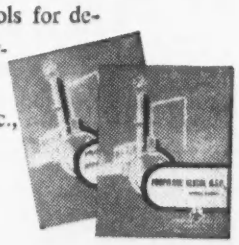
SHIPPING AND HANDLING

Propylene glycols are available from Jefferson in 4,000-, 6,000-, 8,000-, 10,000-gal. tank cars, tank wagons in most areas, and 55-gal. resin-lined drums.

The handling and storage of these glycols is in most cases a straighforward operation. They present no hazard of explosion, polymerization, fire, health, or other industrial risk. They are hygroscopic and have extremely low vapor pressures. There are, however, certain uses requiring extra protection against contamination during handling and storage . . . explained in detail in our technical literature.

TECHNICAL INFORMATION

Request these new, up-to-date Technical Brochures on Industrial Grade and U.S.P. Grade Propylene Glycols for detailed chemical and physical data . . . Jefferson Chemical Company, Inc., 1121 Walker Avenue, P. O. Box 303, Houston 1, Texas.



HOUSTON • NEW YORK • CHICAGO • CLEVELAND
CHARLOTTE • LOS ANGELES • SAN FRANCISCO

JEFFERSON CHEMICALS

Sodium Formaldehyde Sulfoxylate—Tridecyl Alcohol

Sodium formaldehyde sulfoxylate, dms., t.l., dlvd lb. .22½- —
dms., l.t.l., same basis lb. .23 - —
Sodium zirconyl sulfate, fib dms., 1,000-lb lots or more works lb. .28 - —
fib. dms., smaller lots, same basis lb. .30 - —
Solvent naphtha, coaltar, high-flash, tanks, frt equald gal. .30 - .35½
Petroleum, straight, aromatic, 310°-360F b.r., 14°-16°C. m.a.p., tankcars, New Jersey and New York gal. .29 - —
Houston, Texas gal. .29 - —
355° 420°F b.r., 17°-18°C. m.a.p., tankcars, New Jersey and New York gal. .30 - —
Houston, Texas gal. .30 - —
Partial aromatic, 211°-265°F b.r., 31°C m.a.p., tankcars, New Jersey and New York gal. .235 - —
286°-340°F b.r., 22°C m.a.p., tankcars New Jersey and New York gal. .275 - —
319°-380°F b.r., 27° C. m.a.p., tankcars, New Jersey and New York gal. .27 - —
324°-395°F b.r., 28°C m.a.p., tankcars, New Jersey and New York gal. .28 - —
Sorbitan monostearate fib dms., 20,000-lb lots, works lb. .33½- —
10,000 to 20,000-lb lots, works. lb. .35½- —
fib dms, smaller lots, works lb. 38½ 40½
Sorbitan tristearate fib dms, 20,000-lb lots works lb. .34 —
fib dms, 10,000 to 20,000-lb lots, works lb. .36 —
fib dms, smaller lots works lb. .39 .41
Sorbitol, USP, reg., 70% aqueous, dms c.l. works lb .18 —
dms, t.c.l. works lb .19 —
tanks works lb .16¼ —
powd., dms., c.l., works lb. .38½- —
dms, 10,000 to 20,000 lb. lots, works lb .40½ —
Sorbitol, soln., comi., aqueous, dms., c.l., works lb. .26 - —
dms., t.c.l., works lb. .27 - —
tanks, works lb. .23¼- —
Soya protein, chemically isolated, old process bgs., c.l., works, lb. .23 —
bgs. t.c.l., works lb. 23¼ 23½
Chemically isolated new process, bgs., c.l., works lb. .20 —
bgs., t.c.l., works lb. 20¼- 29½
Soybean meal, 44%, bulk, unrestricted, Decatur ton 62.00 - —
Soybean oil, crude, tanks, Decatur, lb 10.40 - —
Foots, soapstock acid 95%, tanks, New York lb. .05½- —
Alkali, refd., dms. lb. .1470- .1495
tanks lb. .1270- —
Clarified dms. lb. .1420- .1455
tanks lb. .1220- —
Refd., salad, dms. lb. .1465- .1490
tanks lb. .1265- —
Soybean oil acids, dbl dist., dms., lb. .17¼- .18½
tanks lb. .14¾- —
S. D., dms. lb. .16 - .18½
tanks lb. .13½- —
Sparteine sulfate, cns., 100 oz. or more oz. 80 —
Spearmint leaves, dom., bls lb 75 —
Spearmint oil, NF, dms lb. 3.75 - —
Sperm oil, bleached winter, 45°, dms. lb. .1750- .1850
tanks lb. .1550- —
Nat., winter, 45°, dms. lb. .1650- .1750
tanks lb. .1450- —
Spermaceti wax, blocks, cs lb .32 .33
cakes, cs. lc .3 .34
Spruce oil, cns., dms lb 2.10 3.55
Squill, white, bls lb 16 18
Powd., bbls., bxs lb 17 20
St. John's bread, edible, bls lb. .17 .20
Stannic chloride, anhyd., dms., works lb. .906 - .928
Stannous chloride, anhyd., cms lb. 1.129 - 1.384
Stannous chloride, hyd., crystal, 800 lbs. or more lb. .95875- —
Stannous oxide, dms., dlvd. lb. 1.682 - 1.812
Stanous sulfate, works lb. 1.217 - 1.257
Star root (see Helonias root)
Stargrass root (see Aletris root.)
Stavesacre seed, bgs lb 60 61
Stearic acid, bbl, pressed, bgs. lb. .16¾- .19¼
Single-pressed, bgs. lb. .16¼- .18¾
Triple-pressed, bgs. lb. .18½- .21
Stoddard solvent, petroleum tanks, east coast, New Jersey, New York gal. .18 —
tanks, Houston gal. .1475- —
tanks, group 3 gal. 12875 —
Stramonium leaves, bgs lb. .15 - .20
Streptomycin sulfate, bulk gram. .028 - .03
Strontium bromide, NF, cryst., gran. 150-lb dm frt. equald lb 1.00 —
Strontium carbonate pure cms 3 ton lots or more, works lb .35 - —
dms, 1-ton lots, works lb 37 - —
Tech., dms, works lb 19 - —
Strontium chromate fib dms, dlvd. lb 48 —
Strontium iodide jars, 25-lb lots lb 3.57 —
Strontium nitrate bgs, c.l. works 100 lbs 11.00 —
bgs, t.c.l. works 100 lbs 12.00 —
Strontium salicylate, NF dms lb 1.88 —
Strontium sulfate, air floated, 90% 325 mesh bgs, works ton 56.70 66.15
Strophanthin G (see Ouabain USP)
Strophanthin K, bots oz 25.00 25.50
Strophanthus seed, Kombi, biologically tested, bgs lb 2.50 3.00
Styrax gum USP, cs lb 4.50 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., dlvd lb. .17 - —
dms., t.c.l., same basis lb 19 —
tanks, frt. equald. lb. .132 - —
Tech., 99.2%, dms., c.l., dlvd. lb. .15 - —
dms., t.c.l., same basis lb. .17 - —
tanks, frt. equald lb. .1103- —
Above prices are escalated for each calendar quarter on the basis of cost of benzene in the range of 31c to 34c a gallon and petroleum refining labor
Styrolyl acetate, bots lb 1.03 1.10
Succinic acid, purif., cryst., dms., t.l. frt alld lb .62 —
dms, t.t.l., same basis lb .63 .75
Succinic anhydride, dms, c.l., t.l., dlvd lb. .51 —
dms., t.c.l. same basis lb. .52 —
Sucrose, refd, white, bgs, refy & lb. .0915- —
Sucrose acetate isobutyrate, 90%, dms, t.l., dlvd lb. .33½- —
dms., t.t.l. same basis lb .35 —
tanks, same basis lb. .31 —
100%, t.l., dms, dlvd. lb. 35¼- —
l.t.l. dms., same basis lb. .37 —

Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs, l.c.l., works lb. 1.00 - —
Sugar (see Sucrose).
Sugar cane wax dom., refd., slabs, 80-lb ctns., works lb. .60 - .65
80-lb ctns, spot lb. .65 - .75
Sulfabenzamide, dms. kilo 8.80 9.90
Sulfabenzamide-sodium, dms. kilo 9.00 -10.10
Sulfacetamide, USP, fib dms kilo 6.61 6.83
Sulfacetamide-sodium USP, fib. dms kilo 8.15 9.25
Sulfadiazine, USP, microcrystals, dms kilo 23.35 -24.45
USP, powd., dms. kilo 22.60 -23.70
Sulfadiazine-sodium USP, dms kilo 24.80 -25.90
Sulfaguanidine, NF X dms kilo 5.50 6.60
Sulfamerazine, USP, microcrystals, dms kilo 23.50 - —
Sulfamerazine-sodium, USP, powd., dms kilo 24.80 25.90
Sulfamethazine USP XV microcrystals, dms kilo 19.65 -20.75
USP XV powd. dms kilo 18.75 -19.85
Sulfamic acid, cryst, dms., c.l., t.l., works 100 lbs 16.00 —
dms, t.c.l., t.t.l., works 100 lbs 17.50 18.50
Gran., dms., c.l. t.l. works 100 lbs 14.75 —
dms., t.c.l. t.t.l. works 100 lbs 16.25 -17.25
Sulfanilamide NF reg. 1,000 lb., fib. dms., frt. equald lb. 1.75 - —
NF, reg., smaller lots, fib. dms., frt. equald lb. 1.80 - —
Sulfanilamide quinoxaline, veterinary dms kilo 16.28 - —
Sulfanilic acid, tech. dms c.l., trt. alld lb. .21 - —
dms. t.c.l. frt alld lb. .23 - —
Sulfapyridine, USP XV, powd., bots., tins kilo 15.45 -16.55
Sulfapyridine-sodium monohydrate, dms kilo 16.55 -17.65
Sulfathiazole NF X microcrystals, dms kilo. 6.25 6.90
NF X powd. dms kilo 5.50 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb lots or more lb. 2.35 —
Sulfur, comi. flour, bgs. mines, 100 lbs 2.35 - —
bbls. mines 100 lbs 3.30 - —
lump, bgs., mines 100 lbs 2.25 - —
bbls., mines 100 lbs 2.80 - —
Sulfur crude, com. bright, bulk, f.o.b cars, mines long ton 23.50 - —
export, f.o.b vessels Gulf ports, long-ton 25.00 - —
US and Canada f.o.b vessels Gulf ports long-ton 25.00 —
Domestic dark sulfur prices are $1 per long-ton lower
Sulfur, crude, imp. Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton 24.00 —
Mexican dark sulfur price is $1 per long-ton lower
Sulfur, refd. flowers, NF, bgs., mines 100 lbs 5.65 - —
bbls., mines 100 lbs 7.00 - —
flour, light, bgs. mines 100 lbs 5.25 - —
bbls. mines 100 lbs 6.25 - —
lump, bgs. mines 100 lbs 4.95 - —
rolls, bgs., mines 100 lbs 5.50 - —
bbls. mines 100 lbs 6.25 - —
salt block, bgs. mines 100 lbs 4.65 - —
virgin block, bbls. mines 100 lbs 4.70 - —
Sulfur, rubbermakers, comi., reg. bgs. mines 100 lbs 2.45 - —
bbls. mines 100 lbs 3.70 - —
98-100%, pashing through mesh, bgs., mines 100 lbs. 2.55 - —
bbls. mines 100 lbs 3.80 - —
Sulfur, refd., bgs., mines 100 lbs. 4.90 - —
bbls. mines 100 lbs 6.05 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs 2.75 - —
bbls. mines 100 lbs 4.00 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .05½- —
ret. dms., t.c.l., same basis lb. .06¾- —
tanks, same basis lb. 04½- —
Sulfur dioxide, liq comi., cyls., works, frt equald lb. .10 - .13
multi-unit cars, works lb. 0535- —
tanks works lb .045 —
refrigeration, cyls., dlvd lb. .33 - —
Sulfur monochloride, 55-gal non-ret. dms., c.l., frt. equald lb. .05½- —
dms., t.c.l., same basis lb. .06¾- —
tanks, same basis lb. 04½- —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs 2.00 - —
cbys., t.c.l., works 100 lbs 2.30 - —
tanks, works ton 18.60 - —
66°Be, cbys., c.l., works 100 lbs. 2.25 - —
cbys, t.c.l. works 100 lbs 2.55 3.35
tanks, works ton 22.35 —
98%, tanks, works, East ton 23.50 - —
99%, tanks, works, East ton 23.70 - —
100%, tanks, works, East ton 23.95 - —
Sulfuric acid, California works, tanks ton 26.45 - —
CP, NF consumers cbys., c.l., frt. equald lb .12¾- —
consumers' cbys., t.c.l., same basis lb. .14¼- .14¾
5-pt bots, extra cs, c.l. works, frt al'd lb. .16¼ —
5-pt bots, extra cs, t.c.l. same basis lb 17¾- .18¼
Sulfuric acid, fuming (oleum), 20% tanks, works ton 25.00 - —
40% tanks, works ton 29.00 - —
65% tanks works ton 39.50 - —
Superphosphate, run-of-pile, under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton .90 .93
bulk, c.l. Carteret, N. J. unit-ton .90 .93
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l. East Tampa, Fla. unit-ton 1.00 —
bulk f.o.b. vessel at Fla unit-ton 1.05 - —
Sweet birch oil, USP, northern cns lb 4.00 9.50
USP, southern cns lb 2.00 3.05

T

2,4,5-T, dms, c.l. works, frt. equald. lb 1.18 - —
dms., t.c.l. same basis lb 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt equald lb 1.24 - —
dms, t.c.l. works lb 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton 28.00 —
bgs, t.c.l. works ton 31.00 -36.00
Talc, dom., 99.5%, 325 mesh, bgs., c.l., works, New York ton 31.00 - —
bgs, t.c.l. works ton 34.00 —
99.95X, 400 mesh, micronized, bgs., c.l. works ton 38.00 - —
625 mesh micronized, bgs., c.l. works ton 80.00 —
Dom., ord., Calif., grd., bgs., c.l., works ton 34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton 19.40 —
bgs, t.c.l., works ton 37.00 —
Imp., Canadian, grd., bgs., c.l., mines ton 20.00 35.00
tanks, works lb. .02⅞- 03⅛
Tall oil, crude, tanks, works lb. .03¼- .03½
Acid, refined dms., c.l., works lb. .08¾- .10
tanks, works lb. .07½- .08¾
Dist., depending on grade, dms., c.l., works lb. .08¾- .09¾
tanks, works lb. .07½- .08½
Tall oil fatty acids, less 2% rosin acid, dms., c.l., works lb. .09¾- .11
tanks, works lb. .07¾- .09
2-6% rosin acid, dms., c.l., works, lb. .08½- .09
tanks, works lb. .06½- .07
Tallow, edible, tanks, dlvd lb. .08¾- —
Inedible, fancy bleachable, tanks, lb. .05⅝- —
fancy, guarant'd, bulk, f.o.b., steamer lb. .06¼- Nom.
dms., f.a.s. lb. .07¼- Nom.
tanks, dlvd. lb. .057⅛- —
No. 1, dlvd. lb. .05 - —
Prime, tanks, dlvd. lb. .05½- —
Special tanks, dlvd. lb. .05⅜- —
Sulfonated 25%, bbls., l.c.l., ... lb. .08½- .08¾
50% bbls., l.c.l. lb. .10½- .11
Tallow acids, dist., dms. lb. .13¼- .15¾
tanks lb. .10¾- —
Hydrogenated, dms. lb. .15½- .18
Tallow oil, acidless, dms., c.l. lb. .14 - —
dms., t.c.l. lb. .16 - —
tanks lb. .12½- —
Tangerine oil, Florida, dms. lb. 4.25 - —
Tankage, animal, teeding, 9-11% ammonia New York bulk unit-ton. 4.75 5.00
Tannic acid, NF, fluffy, bbls, 1,000-lb lots lb 2.05 —
bbls, smaller lots lb 2.06 2.07
powd., bbls., 1,000-lb. lots... lb. 1.95 - —
bbls, smaller lots lb 1.96 1.99
Tech., dms lb 1.05 —
Tansy oil, dms lb 6.60 8.00
Tar, acid oil, 15-18%, dms., c.l., dms., t.c.l., same basis gal. .55½- —
tanks, same basis gal. .43½- —
25-28%, dms., c.l., frt. equald gal. .53½- —
basis gal. 60 - —
dms., t.c.l. same basis gal. .62 - —
tanks same basis gal. .50 - —
50-53% dms. c.l., same basis gal. .75 - —
dms., t.c.l. same basis gal. .77 - —
tanks same basis gal .65 —
Tar, coal (see Coaltar)
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF, 100-lb bgs., c.l., frt equald lb. .41 - —
bgs. 10,000 lbs. 1 shipt, same basis lb. .43 - —
bgs. smaller lots, same basis lb. .47 - —
Terpine hydrate, NF, cryst., powd., 100-lb fib dms lb. .70 - —
Terpineol, extra, dms lb. .50 .60
Prime, dms lb. .40 .50
Terpinyl acetate, extra, cns., dms, lb. .64 .75
Prime, dms lb .53 .56
Terpinyl propionate, dms lb. 1.65 1.70
Testosterone, USP, bots gram No prices.
Testosterone propionate, USP, bots, gram No prices.
Tetrachloroethane, dms, works lb. .14½ —
Tetrasodium pyrophosphate (see Sodium pyrophosphate)
Tetrachloroethylene, tech. (see Perchloroethylene)
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms, t.c.l., works lb .22 .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .65 - —
dms., t.c.l., dlvd. E lb. .66½- —
Tetraethyl pyrophosphate, 40%, cns., dms., frt equald lb. .75 —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½- —
dms., t.c.l., dlvd. E lb. .55 - —
tanks, dlvd. E lb. .51 - —
Tetraethylthiuram disulfide, tech., dms., frt alld lb. 1.04 —
Tetrahydrofuran, dms, c.l., t.l., works lb. .36½- —
dms., t.c.l., or l.t.l., works lb. .37 - —
tanks, works lb. .35 —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .25½- —
dms., t.c.l., Memphis, Tenn. lb. .26½- —
dms., c.l., t.l., Newark, N.J. lb. .27½- —
Tetrahydrofurfuryl alcohol, dms., t.c.l., Newark, N. J lb. .28½- —
tanks, dlvd. E. of Denver lb. .25 - —
tanks, dlvd. W of Denver lb. .26 - —
Tetrahydrophthalic anhydride dms., c.l., t.l., frt alld E lb. .39 - —
t.c.l., t.t.l., same basis lb. .41 - —
Tetrapotassium phosphate (see potassium phosphate)
Thallium metal, dlvd lb. 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb 5.00 -10.00
Theobromine, NF, fib dms, 100 lbs., f.o.b., works lb. 4.10 4.15
Theobromine and sodium acetate, USP, fib dms 500-lbs. works lb. 6.45 - —
Theobromine, sodio-salicylate, NF, fib dms., 500 lbs., works, lb. 3.80 - —
Theophyline, USP, anhyd, 100-lb dms., frt alld lb 3.65 - —
Thiamine hydrochloride, USP, fib dms., frt. alld kilo 27.00 - —
Thiamine mononitrate, USP, fib dms., frt. alld kilo 27.00 - —
Thiocarbanilide, dms., ton lots lb. .74 - —
dms., less ton lots lb. .76 - —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb. 5.20 - —
Tungstated, PTMA, kgs., works lb. 6.20 - —
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis lb. 1.15 - —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 - —
Thiourea, tech, bgs, t.l. frt alld. lb .30 - —
bgs., ton lots, same basis lb. .32 - —
bgs., less than ton lots, same basis lb. .33 - —
Thorium nitrate, purif., fib dms., 100-lb lots or more, works lb. 3.50 - —
dl-Threonine, dms., 25 kilos, works, kilo. 115.00 - —
Thyme leaves, French, triple sifted extra, bgs lb. .25 - —
Spanish, extra, bgs lb. .11 - —
reg., bgs. lb. .08 - —
Thyme oil, NF, red, cns., dms. lb. 3.25 - 3.60
NF, white, cns lb. 3.50 - 3.95
Tech., white, cns lb. .80 - 1.10
Thymol, fib dms., 25-lbs., f.o.b. works lb 2.45 - —
Thymol iodide, NF, dms, 100-lbs. f.o.b. works lb 7.30 - —
Timbo root (see Tuba root)
Tin chloride (see Stannous chloride, anhyd.)
Tin crystals (see Stannous chloride, hydrous)
Tin metal (Straits) lb. 1.21¾- —
Tin oxide (see Stannic oxide)
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.).
Titanium dioxide, anatase, all grades, bgs., 30-ton c.l. min. frt. alld. lb. .25 - —
20-ton c.l. min. frt. alld. lb. .25½- —
bgs., l.c.l., same basis... lb. .26 - .26⅛
Titanium dioxide, rutile, all grades, bgs., 30-ton c.l. min. frt. aid . .27 - —
20-ton c.l., min. frt. alld. lb. .27½- —
bgs., l.c.l., same basis .... lb. .28 - .28⅛
metallurgical, nat., bgs., c.l., f.o.b Jacksonville, Fla. ton 180.00 - —
bgs., 5-ton lots, Niagara Falls, N.Y. ton 205.00 - —
bgs., ton lots, same basis ton 215.00 - —
Milled metallurgical titanium dioxide $7.50 per ton higher
Titanium dioxide-calcium pigment, 30% Ti O_2, reg. bgs., 30-ton c.l., f.o.b lb. .09⅛- —
20-ton c.l., works lb. .09⅜- —
bgs., l.c.l., works lb. .09⅞- —
50% Ti O_2, high-tinting, dms., 30-ton c.l lb. .14⅛- —
20-ton c.l., works lb. .14⅜- —
dms. t.c.l. lb. .14⅞- —
Titanium hydride, powd., dms., works lb. 8.10 9.00
Titanium tetrachloride, tech., dms., c.l., works lb. .26 —
dms., t.c.l., works lb. .27½- .29
tanks, works lb. .20 —
Tobias acid, dms., c.l., t.l., 20,000 min., f.o.b. plant, frt. alld E lb. .81 - —
dms., l.c.l., l.t.l., 5,000-lbs.-19,999 lbs., same basis lo. .81½- —
dms., l.c.l., l.t.l., less than 5,000 lbs., same basis lb. .84 - —
For west coast delivery add 2c. per lb.
d-a-Tocopherols, NF, mixer, conc., pure basis, bots kilo. 67.00 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo. 122.00 - —
d-a-Tocopheryl acid succinate, cryst., bots kilo. 109.00 - —
dl-a-Tocopherol, bots. kilo 99.00 —
dl-a-Tocopheryl acetate, bots kilo. 90.00 —
25% dry powd., bots kilo. 22.50 -24.00
33% dry powd. bots. kilo. 30.00 31.50
o-Tolidine base, dry, kgs., 100% basis lb 1.55 —
Paste, kgs. 100% basis lb 1.50 —

TOLUOL

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

Tolu balsam, cns. lb. 4.00 - 4.50
Toluene, coaltar, indust., or nitration tanks, dlvd. E. of Rockies gal. .25½- —
Petroleum, indust., tanks, dlvd.gal. .25½- —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 - —
dms., t.t.l. same basis lb. .63 - —
Toluenesulfonic acid, 55-gal. dms., t.l., frt alld lb .16 - —
1,000-lb or more, same basis lb. .18 - —
less than 1,000-lb., same basis lb. .23 - —
tanks, same basis lb. .14 - —
Toluenesulfonic acid in 10-gal. dms. 2c per lb more.
p-Toluenesulfonic acid mononydrate, dms., c.l., or t.l lb. .90 - —
dms. 125 lbs. to t.l. lb. 1.00 - —
m-Toluidine, dms. c.l., works, frt. alld lb. .83 - —
dms., t.c.l., same basis lb. .84 - —
tanks, same basis lb. .82 - —
o-Toluidine, dms., c.l., works, frt. alld lb. .27 - —
dms., t.c.l., same basis lb. .28 - —
tanks, same basis lb. .26 - —
p-Toluidine tech. flake, dms., frt. alld lb. .50 - —
Cast, dms. frt. alld. lb. .45 - —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 - —
Light shades, kgs. works lb. 1.70 - —
2,4-Tolylenediamine, cryst., fib. dms., t.c.l., frt alld lb. 1.10 - —
Tonka beans, Angostura, prime f.o.b., N.Y. lb. 1.35 - 1.50
Brazilian, Surinam, cs., same basis lb. 1.00 - 1.10
Totaquine, 100-oz. lots, cns. oz. .42 - —
Toxaphene, dms., c.l., t.l., works, lb. .22 - —
dms. t.c.l. t.t.l., works lb. .28 - —
Tragacanth gum, No. 1, ribbons, cs lb. 4.10 4.20
No. 2, cs. lb. 3.75 3.80
No. 3, cs. lb. 3.40 3.65
USP powd., bbls. lb 1.05 1.15
Triacetin, dms., c.l., dlvd, E. of Rockies lb. .38 - —
dms., t.c.l., same basis lb. .39½- —
tanks, same basis lb. .35½- —
Triallylamine, dms., c.l., dlvd lb. .985 —
dms., t.c.l., dlvd. lb. .995 - —
tanks, dlvd. lb. .96 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld E. of Denver, lb. .42½- —
non-ret. dms., t.c.l., frt. alld. E. of Denver lb. .43½- —
tanks, frt alld E of Denver lb. .40 - —
Tributyl phosphate, dms., c.l., works, lb. .52½- —
dms, t.c.l., same basis lb. .53½- —
tanks, same basis lb. .50 - —
Tributylamine, dms., c.l., works lb. .67½- —
dms., t.c.l., same basis lb. .69 - —
tanks, same basis lb. .65 - —
Tributyrin, dms, t.c.l. dlvd lb. .69 - —
Trichloroacetic acid, tech., 300-lb. dms, c.l., f.o.b works lb. .52 - —
USP, 100-lb dms, frt. equald lb. 1.25 - —
Trichlorobenzene, dms, c.l., frt. alld. E lb. .15 - —
dms., t.c.l. frt. alld. E. lb. .16 - —
tanks, frt. alld. E. lb. 13¼ - —
Trichlorobenzene prices in the West 1¾c. higher
1,1,1-Trichloroethane, dms., c.l., dlvd. lb. .13¼- —
dms., t.c.l., dlvd lb. .16 - —
tanks, dlvd lb. .12¼- —
1,1,2-Trichloroethane, dms., c.l., works lb. .15½- —
dms., t.c.l., works lb. .16½- —
tanks, works lb. .13½- —
Trichloroethylene, dms., c.l., or t.l., dlvd lb. .13½- —
dms., t.c.l., dlvd. lb. .14¾- .15¼
tanks, dlvd. lb. .12 - —
Trichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - —
dms, t.c.l. same basis lb. .75 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., non-ret. dms., 1 dm. frt. equald kilo. 3.10 - —
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb. .35 - —
dms., t.c.l., dlvd. lb. .36 - —
tanks dlvd lb. .32½- —
Petroleum, dms., c.l., dlvd lb. .35 - —
dms., t.c.l. dlvd. lb. .36 - —
tanks dlvd. lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E lb. .22½- —
dms., t.c.l., dlvd, E lb. .24 - —
tanks, dlvd. E. lb. .20 - —

Triethanolamine, dms., c.l., divd. E. lb. .24½- —
dms., t.c.l., same basis lb. .26 - —
tanks, same basis lb .22 - —
Triethanolamine tauryl sulfate, dms., c.l., t.l., frt. alld lb. .25½- —
dms., t.t.l. frt. alld. lb. .26½- —
tanks, frt. alld. lb. .24½- —
Triethylamine dms. c.l., divd E. lb. .50 - —
dms., t.c.l., same basis lb. .51½- —
tanks, same basis lb. .47½- —
Triethyl citrate, refd., tech., non-ret. dms., c.l., frt alld E. of Denver lb. .46¼- —
non-ret. dms., t.c.l., frt. alld. E. of Denver lb. .47¼- —
tanks, frt alld E. of Denver. lb. .43¾- —
Triethyl phosphate, dms., c.l., divd. lb. .40½- —
dms. t.c.l., divd. lb. .42 - —
tanks, divd lb. .38 - —
Triethylene glycol, dms., c.l. divd. E lb. .21 - —
dms., t.c.l., divd. E lb. .22½- —
tanks, divd. E lb. .18½- —
HP, tanks, divd. E lb. .20 - —
Triethylenetetramine dms., c.l., divd. E lb. .48½- .48¾
dms., t.c.l., same basis lb. .50 - .50¼
tanks, same basis lb. .46 - —
Triisobutylene, tanks, divd. lb. .08 - —
Triisopropanolamine dms., c.l., divd. E lb. .23¼- —
dms. t.c.l., divd E lb. .24¾- —
tanks, divd E lb. .20¾- —
Trimethylamine anhyd., cyls. t.c.l., frt. equald, 100% basis lb. .30 .305
tanks frt equald 100% basis. lb. .26 - —
25-40% soln., dms., c.l., frt. equald, 100% basis lb. .35½- —
dms. t.c.l. frt equald 100% basis lb. .35½- —
tanks 100% basis, frt. equald lb. .26 - —
Trimethylolpropane dms., c.l., t.l., divd. E lb. .30½- —
dms., t.c.l., t.t.l., same basis lb. .31½- —
Trioxanes pure, dms. c.l., t.l., works lb. .50 - —
dms. t.c.l. works lb. .51½- —
Tripentaerythritol bgs., c.l., t.l., divd. E lb. .34 - —
bgs. t.c.l., t.t.l. divd. E lb. .35 - —
Triphenyl phosphate bbls. c.l., frt. equald lb. .41½- —
bbls. t.c.l. frt. equald lb. .43½- —
Triphenylguanidine bbls. works lb. .90 - —
Tripropylene dms. c.l., divd. E gal. .44 - —
dms., t.c.l. same basis gal. .54 - —
tanks same basis gal. .28 - —
Tripropylene glycol dms., c.l., t.l., frt alld E lb. .20½- —
dms. t.c.l. t.t.l. frt alld E lb. .22 - —
tankcars and compartmented tankcars, frt alld E lb. .17½- —
tankwagon and compartmented tankwagon, 1,000 gals., min. frt. alld. E lb. .18 - —
Tripropylene glycol prices 1c per lb higher in west
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Trypophane, dms., 1 kilo, works kilo.154.00 —
Tung oil, dms., New York lb. .31½- .32
tanks, imported lb. .30¼- —
tanks, domestic, mills lb. .30¼- Nom.
Tungsten metal powd. 2.0-2.5 microns, dms works lb 4.25 —
Tungstic acid, tech., dms. 1,000-lb lots, works lb 2.25 - —
dms. smaller lots, works lb 2.45 - —
Turkey red, bbls. works lb .52 —
Turpentine, gum (see Protective Coatings market, Naval Stores)
Turpentine oil, N. cns., dms lb .28 .50
Tuscan red, bbls. frt equald lb .26 .32
Tyrothricin USP, 1 to 5 kilos gram .50 - —

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb bbls., divd. E. of Rockies lb. .33½- .38
Jobbing types, dry, bbls., same basis lb. .13 - .19
Regular types, dry bbls., same basis lb. .25 - .40½
Ultramarine blue prices 1c higher W. of Rockies
Umber, pigment, burnt, American, bgs., c.l., works lb .07½ .07¾
bgs. t.c.l. works lb. .07¾ .08
turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N.Y. lb. .08½ —
Raw, American, bgs. works lb. .07¾ .08¼
Turkey-type, bgs. works lb .08¼ .08¾
Undecylenic acid, 55-gal. dms. f.o.b. works lb. 1.28 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N, indust. bgs., c.l., t.l., f.o.b. plant ton 100.00 - —
Urea, feed grade, c.l., t.l., f.o.b. plant ton 95.00 - —
45% N, agricultural, bgs., c.l. f.o.b. plant ton 91.25 - —
Bulk, c.l., t.l., same basis ton 85.25 - —
Urea-ammonia liquor, A, B, C & F grades, N basis, tanks frt equald ton 120.00 - —
37 grade, tanks, same basis ton 145.00 - —
Urethane, USP, dms. t.l., f.o.b. works lb .65 - —
dms. t.c.l. same basis lb .70 - —
Uva-Ursi leaves, bls. lb. .14 - .15

V

Valerian root, Belgian, bgs. lb .32 - —
Indian, bgs lb .25 - —
dl-Valine, dms. 1 kilo, works kilo.37.00 - —
Vanadium pentoxide, tech., dms. works lb. 1.38 - —
Vandyke brown, bbls., works lb .09½- .12
Vanilla beans, Bourbon, tins lb. 6.75 - 7.00
Mexican cuts, tins lb. 7.50 - 7.70
whole, tins lb. 7.80 - 8.00
Vanillin ex lignin, 100-lb fib. dms., 2,000-lb. lots or more lb. 3.00 - —
less than 2,000 lbs lb. 3.20 3.30
Venetian red, jobbing, bgs., works. lb. .0475- —
Venetian red 20%, bgs., works lb .0525- —
25%, bgs., works lb .0575- —
30%, bgs., works lb .06 - —
35%, bgs., works lb .0625- —
40%, bgs., works lb .0675 - —
Vetiver oil, Bourbon, cns lb.17.00 -17.25
Haitian, cns. lb.10.00 -12.00
Victoria blue toner, molybdated, PMA 250-lb. bbls., divd. E. of Rockies lb. 4.50 4.95
Tungstated, PTMA, 250-lb bbls., divd E. of Rockies lb 5.55 —
Victoria blue toner, bbls., prices 1c. higher W. of Rockies.

Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., divd lb. .1810- —
55-gal. dms., t.c.l., divd lb. .1960- —
tanks, divd. lb. .1560- —
tanktrucks less than 4,000 gal., divd lb. .1610- —
Vinyl n-butyl ether, tech., dms., t.c.l., works lb. .50 - —
Vinyl chloride monomer, tanks, works, min. frt. equald E. lb. .0750- —
Vinyl ether, USP, anesthesia, bots., 50cc., hospitals bot. 1.12 - —
bots., 75cc. hospitals bot 1.56 - —
Vinyl ethyl ether, tech. dms., c.l., works lb. .30¼- —
dms., t.c.l., works lb. .31 - —
tanks, works lb. .28¼- —
Vinyl propionate monomer, dms., c.l., divd lb. .49 - —
dms., t.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms to tanks, works lb 1.20 - —
1 to 9 dms., works lb. 1.35 - —
tanks, works lb 1.15 - —
Vinyltoluene, dms., c.l., f.o.b., dest. frt. paid, Zone 1 lb. .16½- —
dms., t.c.l., same basis lb. .18½- —
tanks, same basis lb. .14 - —
Zone 2 prices are 1c. per lb. higher. Zone 1 is East of Rockies. Zone 2 is West of Rockies.
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units .02½- —
Virginia type red, bbls., works lb. 1.40 —

Vitamin A acetate, dry, 500,000 units per gram, kilo lots, kilo.47.50 - —
325,000 units per gram, same basis kilo.30.88 - —
250,000 units per gram, same basis kilo.23.75 - —
Dry vitamin A acetate in less than kilo lots, $1.23 to $2.50 per kilo higher
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units. .07 - —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .07 - —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins gram.45.00 - —
Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms. gram. .57 - —
Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B_{12} activity gram.52.00 - —
0.1% trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 kilo.52.00 - —
Vitamin B_{12}, 0.1% trituration of cyanocobalmin, USP, with dicalcium phosphate or mannitol gm.52.00 - —
USP solution of cyanocobalamin (5,000 micrograms per cc.), 5-gram bots gram.52.00 - —

Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo, dms. gram. .57 - —
Vitamin B_{12}, 0.1% cobalamin concentrate, NF adsorbed on resin, 500-gram bots 1-5 kilo dms. frt. alld gram .57 - —
Vitamin B_{12}, 0.1% cobalamin concentrate in gelatin, 1-10 kilo. dms., frt. alld gram .57 - —
Vitamin C (see Ascorbic acid).
Vitamin D_2 (see Codliver and Fishliver oils, Calciferol and Viosterol)
Vitamin D, dry, 850,000 units per gram, kilo lots kilo.42.50 - —
850,000 units per gram less than kilo lots kilo.45.00 —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin H (see Biotin).
Vitamin K, active (see Menadione).
Vitamin K_1, 25-gram lots gram. 4.50 - —
Violet methyl toner (see Methyl violet toner)
VM&P naphtha (see Naphtha, VM&P petroleum).

W

Wahoo root bark, bls lb. 2.10 - —
Warfarin, 0.5% dms. 50-lb. lots, divd lb. 1.95 - —
dms. 25-49-lb. lots, New York or Chicago lb 2.05 - —

—Continued on page 54

New help for you

Important information is summarized below about Roche Vitamin E. This will help you select the best type for each of your products. Use pure, potent Roche Vitamin E with confidence.

ROCHE
Vitamin E data sheet

	ROCHE LIQUID TYPES		ROCHE DRY TYPES	
PRODUCT	*dl-alpha-* TOCOPHERYL Acetate, N.F.	*dl-alpha-* TOCOPHEROL, N.F. (unesterified)	Dry Vitamin E Acetate 33%	Dry Vitamin E Acetate 25%
DESCRIPTION	Clear, viscous oil. Pale yellow. Nearly odorless.	Clear, viscous oil. Yellow to light amber. Nearly odorless.	Snow white. Practically odorless and tasteless. Free-flowing.	Free-flowing, spherical beadlets. Mesh range insures maximum uniformity in products.
BIOLOGICAL POTENCY	1 milligram equals 1 International Unit (See Note A).	1 milligram equals 1.1 International Unit.	1 gram equals 333 I.U. of Vitamin E.	1 gram equals 250 I.U. of Vitamin E.
SOLUBILITY	Freely soluble in alcohol; miscible with ether, chloroform, acetone, vegetable oils. Insoluble in water.	Same as *dl-alpha* Tocopheryl Acetate at left.	—	—
STABILITY	Stable in air, light, ultra-violet light, strong acids and heat.	Stable to heat in presence of oxygen. Relatively stable to acids and visible light. (Activity may be destroyed by ferric or silver salts.)	Stable in tablets, capsules, dry mixes and during storage in usual shipping containers.	Exceptionally stable. No potency loss during handling and storage.
USES	Parenterals; multi-vitamin liquids; soft gelatin capsules, lotions, creams, ointments; confections.	Parenterals; lotions, creams, ointments; pet foods; flavor emulsions and citrus oils; in fats as an antioxidant.	Hard gelatin capsules; high-potency tablets (See Note B); multi-vitamin tablets; dietary products.	Hard gelatin capsules; dry granular products for reconstitution; instant food or beverage products, confections.
FORMS	—	—	Granular Fine Powder	Powder
PACKAGING	Seamless aluminum bottles.	Seamless aluminum bottles under inert gas.	Polyethylene bags in fibre drums. ½- and 1-kilo quantities in sealed metal containers.	Polyethylene bags in fibre drums. ½- and 1-kilo quantities in sealed metal containers.

NOTES
(A) This is the International Standard for Vitamin E, adopted by the *International Conference on Vitamin Standardisation* held in London in October, 1941. Roche supplied the synthetic *dl-alpha*-tocopheryl acetate from its laboratories. Since that time, what Roche supplied has been the standard by which all Vitamin E is judged.
(B) Used for direct compression of tablets with flat or slightly curved surfaces.

IMPORTANT—ABOUT COSTS. There are a number of different forms and potencies of Vitamin E commercially available. The potency of the product does not determine which form is most economical to use. The cost per *International Unit* should be calculated when selecting the most suitable type for your formulation.

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Heavy Chemicals

Borax Producers Promise Users: 'No Price Advances Through 1962'

Despite likely cost increases in 1962, there definitely will be no boost in the price of borax. Reluctantly, one of the two major factors in the field last week followed the other's innovating move to promise customers firm prices through '62. Strongly criticizing the move, a trade source points out that wages are negotiated on an annual basis and that cost increases can pop up in many other areas: equipment, utilities, transportation. No advantages are seen in it except in the very restricted area where borane products are in close competition with other materials. Here, assured price stability might tip the scales in favor of borax.

The new policy concurs with two favorable developments, however, which will act to offset its profit-paring effects. One is the successful program to reduce costs at the mine through mechanical innovations.

"Through technological progress," the leading producer recently said, "the company is doing its utmost to minimize the effect of periodic wage and other increases."

The other factor is prosperity, which should have a particularly bracing effect on borax and boric acid.

After lagging early in the year, borax sales began to catch up in late spring, and at the end of nine months had drawn neck and neck with last year's volume. On the basis of current orders and inquiry, producers are certain of a good final period. If its maximum potential is realized, sales will finish comfortably ahead of last year's.

A deferred market drive by glass fibers producers places boric acid in a position to reap particular benefits from the anticipated boom in '62. During the months preceding the 1960-61 recession, the glass fiber industry raced ahead with expansions boosting its capacity an estimated 50 percent. This new plant lay idle through the recession.

Being particularly strong in luxury markets, where the recession hit hard, textile glass fibers had to mark time. Now the plastic boat industry is ready to move again; more takers will probably be found for Corvette's special sports car with an all-glass fiber body, and draperies and other household items will be moving up briskly again.

One trade source says that borax sales should normally grow at least 5 percent a year—representing population growth plus new markets for glass fiber and porcelain enamels. In 1962, the expansion forces that remained dammed up through most of '60 and '61 could propel the market to one of its biggest expansions in years.

Larger sales volume, of course, would help to offset the narrowed profit margin which now is almost inevitable.

Price Trends

Advanced
Tin, Straits, 1¼c. per lb.

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 28, 1960
106.63	106.63	106.63	106.88

For Current Prices See Page 10

Acids

Hydrochloric — Interruption of steel's uptrend is expected to prove merely temporary. A sharp increase in the operating rate should develop in November, trade sources say. Wariness on inventory is likely to continue, though, until signs of a boom are unmistakably apparent at the consumer level.

Hydrofluoric—Atomic Energy Commission continues as the most active force in the open market. Captive production of HF has turned brisk again with increased demand for aluminum and refrigerants.

Nitric—Good call is reported from chemical accounts, and steel is expected to emerge as a more confident customer next month.

Sulfuric—Steel production during the week ended October 21 totaled 2,042,000 tons, down slightly from the 2,071,000 tons reported a week earlier, according to the American Iron & Steel Institute.

Production for the year to date stands at 76,664,000 tons as compared with 84,481,000 tons in the comparable period of last year.

Bases and Salts

Aluminum Sulfate—After a normal lag in summer, paper production has picked up steam, and is now running only a few percentage points behind last year's operating rate. With its 70 percent stake in the paper market, alum has benefited accordingly, trade sources report.

Caustic Soda—Inorganic chemical producers and paper makers are sparking what promises to be a brisk fourth quarter for caustic. Rayon, however, continues as a weak spot in the market's armor because of competitive gains by nylon in tire cord.

Though some observers are skeptical about caustic's long-term future, owing to a more promising growth rate for chlorine, its performance this year has been good. Sporadically, producers have even reported caustic to be running ahead of its co-product in certain parts of the country.

Chlorine—This material is sharing the paper industry's business upturn and is also getting a good boost by way of vinyl

Inorganic Chemicals Output: August

The following figures compiled by the Bureau of Census indicate production of industrially important inorganic chemicals in tons:

	August	July
Aluminum chloride, anhyd.	1,757	1,835
liq. cryst.	2,249	*1,848
Aluminum sulfate, comil. iron-free	85,843	*73,923
	3,451	*4,213
Carbon dioxide, liq., gas, solid	52,098	47,486
	53,274	49,260
Chlorine gas	394,737	*381,612
Hydrochloric acid	83,354	*73,071
Hydrofluoric acid	9,824	8,650
Hydrogen peroxide	1,893	2,448
Nitric acid	276,610	255,208
Phosphoric acid	174,593	*160,250
Phosphorus elemental	33,053	35,213
Phosphorus oxychloride	1,278	2,121
Phosphorus trichloride	1,642	2,196
Potash, caustic, liq.	8,492	9,501
solid	1,477	1,700
Soda ash, syn., light	194,661	184,239
syn., dense	173,658	*168,170
natural	(NA)	56,427
Soda, caustic, liquid	418,215	466,530
dry	39,309	37,475
Sodium bichromate and chromate	10,224	9,092
Sodium chlorate	8,004	8,288
Sodium hydrosulfite	2,044	1,595
Sodium metal	(NA)	(NA)
Sodium phosphate, tribasic	4,552	*3,642
Tetra	8,598	7,173
Meta	6,251	5,077
Acid pyro	1,432	971
Tripoly	66,348	50,879
Sodium silicate	40,988	35,530
Sodium sulfate, anhyd.	26,240	23,054
Glauber's salt	(NA)	4,919
Salt Cake, crude	(NA)	63,574
Sulfuric acid, gross	1,404,256	*1,354,550

(NA) not available.
* Revised.
† Excludes data for government owned privately operated plants.

Heavy Chemicals

chloride, trade sources report. All areas, in fact, are displaying renewed vigor, it is said.

Nonferrous Metals

Aluminum — September production of primary aluminum in the US totaled 159,572 short tons, down from 167,040 in August, the Aluminum Association reports.

Total production for the year through September was 1,404,627 short tons, revising the figure previously reported. Production in the third quarter amounted to 491,345 tons, as compared with 513,419 in the same period last year.

The all-time record month remains July 1959, with production of 180,287 tons, and the all-time record quarter the third of 1959 with 521,309 tons, the association notes.

Magnesium — Production of primary magnesium in the third quarter of 1961 was 9,135 tons, down 1,235 tons from the second quarter, the Bureau of Mines reports. Shipments, however, dropped only slightly, totaling 12,330 tons as against 12,360 the previous quarter.

Exports from January through August totaled 3,583 tons, down from 3,952 in the comparable period of last year. Imports from January through July were 811 tons, up sharply from 73 in the same '60 period.

Tin—Price closed at $1.21¾ per pound Friday, up 1¼c. from a week earlier.

Paper Production Lower

The American Paper & Pulp Association reported paper production for the week ended Oct. 21 at 91.6 percent of theoretical capacity, as compared with the revised figure of 95.1 percent for the previous week and 94.5 percent for the corresponding week of last year.

Heavy Chemical Briefs

SODIUM CHLORIDE PROSPECT: Either common salt or water may be superior to ordinary fireclay for stemming (confining) coal mine explosives, the Bureau of Mines reports. Full details are given in Report of Investigations 5863 titled "Relative Efficacy of Stemming Materials in Reducing Incendivity of Permissible Explosives." Copies are available from Publications-Distribution Section, Bureau of Mines, 4800 Forbes Avenue, Pittsburgh 13, Pa.

Gov't Now Ready to Sell

—Continued from page 5

will start in six months with a ceiling of 2,175,000 pounds to be offered on the market in any one year.

The 10.6 million pounds to be disposed of represents about 7 percent of the total annual consumption of shellac in this country. GSA says that it does not believe that sale of this amount over a period of years would be a burden on the market.

The material to be offered consists of 5.7 million pounds of grade D (TN) and the remainder is grade C (superfine).

The first offering will consist of 550,000 pounds, which will first be made available for transfer to other agencies of the government, and if not taken up, will be sold to highest bidders.

Additional quantities will be offered at intervals of not less than ninety days. Officials say this plan of disposal, with a ceiling of 2,175,000 pounds on annual sales, will protect the government against any loss and should not disturb the market for producers, processors or consumers.

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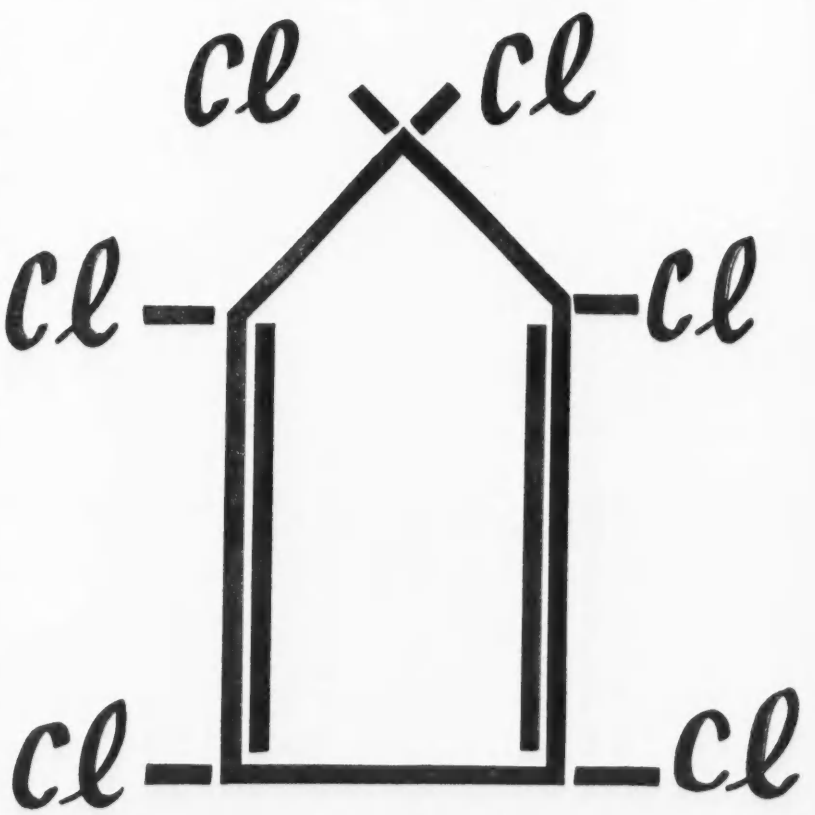

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C-61-4

Obituaries

Frederick Baldwin Adams

Frederick Baldwin Adams, versatile business executive who helped organize Air Reduction Company, died October 23 in New York. He was eighty-three years old.

Mr. Adams was a partner in the New York investment firm of Potter, Choate & Prentice until Air Reduction Company was organized in 1922. Later he served with several insurance companies and railroads, and for four years was a member of the Business Advisory Council of the Department of Commerce.

Harold B. Blumenthal, executive of Puro Filter Company, a water purification firm in Philadelphia, died October 24 in that city. He was sixty-five years old.

John Holmes, former president and chairman of Swift & Co., Chicago, died October 21 in Tucson, Ariz. He was seventy-one years old.

Gelston T. King, head of E. and F. King & Co., producers of paints, marine finishes and heavy chemicals in Norwood, N. J., died October 25 in Sherborn, Mass. He was sixty-seven years old.

James T. Laing, secretary and treasurer of Natural Gas Pipeline Company of America, died October 25 in Chicago. He was sixty-one years old.

Dr. Allan J. McLaughlin, former assistant surgeon general of US Public Health Service, died October 20 in Baltimore, Md. He was eighty-nine years old.

Frank R. Stamer, retired vice-president of Sapolin Paints, Inc., New York, died October 23 at his home in Brooklyn, N. Y. He was sixty-six. A past president of the New York Paint, Varnish & Lacquer Association, Mr. Stamer was made an honorary member of the New York group upon his retirement from Sapolin two years ago. He had been with the paint company for forty years.

Chlorine-Caustic Facility Contract is Awarded by GAF

General Aniline & Film Corporation has awarded Vickers Krebs, Ltd., Montreal, Quebec, Canada, the major contract for expansion of its chlorine-caustic soda facilities from 50 tons to 230 tons per day at Linden, N. J.

GAF will spend between $10 million and $15 million on the project, which will begin in December and be completed early in 1963. Antara Chemical division will operate the plant and market production.

USI Throws in Towel

—Continued from page 3

target as a potential customer for isosebacic acid for synthetic lubricants production.

With the lubricants market written off, National Distillers has decided to close permanently isosebacic facility at Tuscola, Ill. Operated by the company's US Industrial Chemicals Company division, the plant had been idle pending "research and development work" since June 1959.

Word of the company's decision appears in its third quarter earnings report. Losses after taxes as a result of the plant write-off are tallied at $3.5 million—offset by a profit of $3,627,000 on sale of a 40 percent interest in Noranda Copper & Brass Ltd., owned by National Distillers' Bridgeport Brass Division.

R&H adipic acid will be produced by the cyclohexane process under license from Scientific Design Company, which is building the plant at Louisville, Ky. Capacity of the R&H facility is estimated by trade sources at 20 million pounds a year.

Also using the cyclohexane route are E. I. duPont de Nemours & Co. with an estimated 200-million-pound capacity at Belle, W. Va., and Chemstrand Corporation with nearly 200 million pounds at Pensacola, Fla.

As raw material for nylon 6/6, this adipic capacity stood as a serious threat to whatever marketing success USI might have scored with isosebacic.

Any switch to production of nylon 6, an ever-present possibility, would create excess adipic capacity, and the material could be marketed at distress prices to replace isosebacic.

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France's Petrochemicals Complex

—Continued from page 3

five tons of acetylene and 220 tons of ammonia. Owners of this unit are Office Nationale Industrie Azote, a state-concontrolled fertilizer company, with 28 percent. Compagnie de Produits Chimiques et Electrometallurgiques, Pechiney, 21 percent; Compagnie de Saint-Gobain, 21 percent; Societe General D'Engrais et de Produits Chimiques Pierrefitte, a smaller chemical company, 20 percent, and X Banque de Paris et Pays-Bas, 10 percent.

The Largest Methanol Plant

Methanolacq's 100 tons daily facility for methanol will be the largest such plant in France. It will use residual gases from the production of acetylene in Aquitainechimie as its raw material for methanol, which in turn is used in plastic output and in other chemical processes.

Acetalacq, owned by Pechiney, Saint-Gobain and Pierrefitte, will take acetylene from Aquitainechimie to produce seventy-five tons daily of acetaldehyde.

Part of this acetaldehyde will be supplied to Usines de Melle in the complex for production of thirty-five tons daily of butanol for the paint and varnish industry. The balance of the acetaldehyde will be sold to Societe des Usines Chimiques Rhone-Poulenc, a major chemical company, for the chemical raw material needs.

Vinylacq is planning to produce 2,000 tons monthly of vinyl chloride monomer. It will use acetylene from Aquitainechimie and bring in chlorine for this plant. Vinylacq is a Pechiney-Saint-Gobain joint venture.

Azolacq will take the ammonia from Aquitainechimie for production of ammonium nitrate and urea. Present plans call for capacity of 450 tons a day of ammonium nitrate and seventy to one hundred tons daily of urea in the form of granules.

One of Five Major Areas

Lacq's Complexe Chimique de Pardies is one of five major petrochemical areas in France now being developed at a forced pace. It is the only one, though, based on domestically available hydrocarbons. The others are built around refineries or groups of refineries handling imported crude oil.

The Pardies complex is one good omen for the success of the current "plan" for chemical expansion. Under this plan, French plastic output, for example, is expected to reach 750,000 tons in 1965-66.

Vinyl will be 225,000 tons at that time, according to the forecasts, against 110,500 tons of polyvinyl chloride and 14,300 tons of polyvinyl acetate last year.

Polyethylene will rise to 100,000 tons from 35,800 tons last year; polystyrene to 100,000 tons from 41,100 tons in 1960; polyesters, 50,000 tons against 13,000 tons, and amine resins, 65,000 tons against 22,600 tons.

Stepan Chemicals Building Western Surfactants Facility

Stepan Chemical Company plans to come on stream in mid-November at a newly-announced surfactants facility in Los Angeles. This will make Stepan the largest integrated producer of surfactants in the West, the company says.

Based in Northfield, Ill., Stepan now turns out surfactants at Maywood, N. J., and Millsdale, Ill. The new plant, Stepan notes, will enable it to supply West Coast customers with bulk shipments for the first time.

The facility will be managed by Henry Mork, currently serving at the Millsdale plant. Andrew Prüm is being transferred to Northfield as office manager, and Ken Cox, formerly Cleveland, Ohio district sales manager, has been named West Coast manager.

Bayer to Expand in Fibers

Farbenfabriken Bayer AG of Germany reports it is planning a considerable expansion of its synthetic fiber capacity, now rated at 25,000 tons a year. Bayer notes that about 40 percent of its output is exported, especially to European countries with Holland, Belgium, France and the Scandanavian countries the best customers.

Houseflies, Watch Out!

—Continued from page 7

Capacity of the commercial facilities is something Olin says it has not considered yet.

Olin has also announced, as a result of a cooperative program with the Hawaiian Pineapple Research Institute, a pineapple growth regulator, "Omaflora," which speeds up the flowering of the pineapple plant and thereby provides a uniform harvest in individual fields. This development greatly increases the efficiency of year-round pineapple production.

"Omaflora" is a derivative of hydrazine, the versatile chemical which powers missiles and whose other derivatives cure certain poultry diseases, are useful in the treatment of tuberculosis and have many industrial applications.

Fats and Oils

—Continued from page 7

ing production of commercial feeds; more pelleting of feeds; more bulk handling of feeds; wider use of high-protein, high-energy rations; some use of larger percentages of fats in feeds; widened recognition by feed manufacturers and livestock feeders of the advantages of adding fats to feed; and growing supplies of tallow and grease at relatively stable prices.

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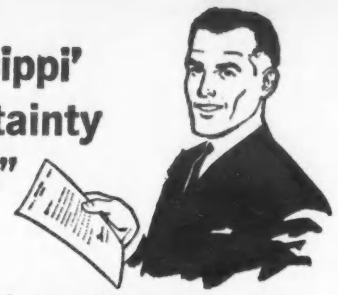

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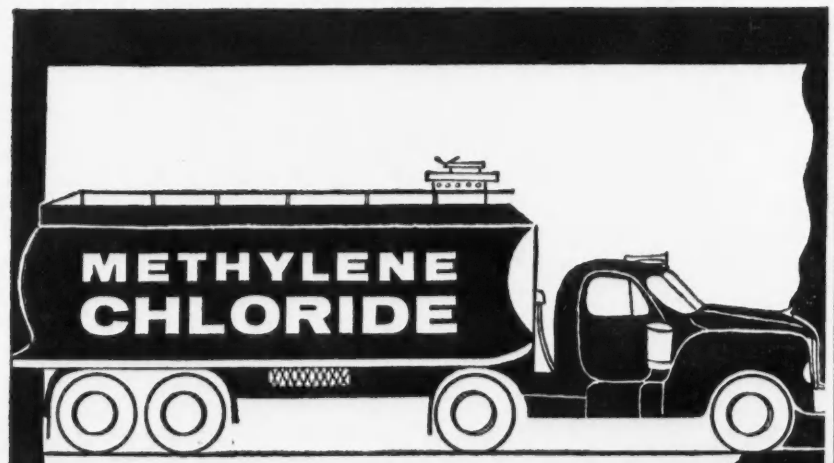

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Aliphatic Organics

Oxo Alcohols Are Expected to Attract New Makers as PA, Phthalates Decline

As prices for phthalic anhydride and phthalate plasticizers go down, the threat of still more entrants, via the oxo process, into the already capacity-burdened C_4 and higher alcohols industry rises. And the most likely candidate today, several trade sources say, is the initiator of the PA reduction. Thinking is, in fact, that complete integration is a reasonable move for this or any producer of both phthalic and phthalate plasticizers which purchases its higher alcohol requirements on the open market. Two factors, it's said, support this reasoning:

First, the rise in phthalic capacity from the current 540-million-pound-a-year level to 870 million in 1963, without any prospect of a parallel growth in demand, means an eventual loss of sales; second, among the plasticizers, greatest growth is indicated for dioctyl and diisodecyl phthalates.

Last year, total production of phthalate plasticizers rose 38 million pounds, to 344.7 million, with two-thirds of the increase attributable to greater output of DOP and diisodecyl phthalate.

DOP Volume Is Largest

Together, these two products also account for a similar share of the overall market. DOP volume is the largest, '60 production amounting to 170 million pounds, a figure which two years ago had been projected for 1965.

Di-2-ethylhexyl phthalate leads the pack and accounted almost entirely for the gain in DOP output reported by the Tariff Commission. Production was 123 million pounds versus 47 million for diisooctyl phthalate.

Growing very rapidly, diisodecyl phthalate output has risen from 23 million pounds in 1958 to 29 million in 1959 to 35.5 million in '60.

There are, to be sure, those who feel that back-integration is no longer warranted. They argue that isooctyl, 2-ethylhexyl, decyl, hexy and tridecyl alcohols—the main emphasis today is on these chemicals—will eventually get so cheap that buyers will be able to call the tune. Reason: Completion of new facilities within the next year is bound to idle much existing capacity.

New oxo plants, for example, will take two of today's biggest buyers out of the market. One firm, building a 60-million pound unit, will turn out n-butanol, isobutanol, isodecanol, isooctanol and 2-ethylhexanol. The second firm, jointly-owned by a producer of PA and a producer of phthalate plasticizers, will have capacity for 40 million pounds a year of isooctyl and decyl alcohols.

Furthermore, output of isooctyl, decyl and tridecyl alcohols from another new and jointly-owned facility will go in large measure to a single buyer, a leading plasticizers producer. And such a contractual agreement, it's said, has a price reduction built in.

Import Pressures

Imports also could exert an increasingly greater pressure on markets for C_4 and higher alcohols. According to some reports, foreign competition has already hurt the market and was one of several factors that prompted sizable price reductions last May.

Isooctyl and isodecyl alcohols, it's believed, are the heaviest volume imports, with combined shipments currently running at an annual rate of 20 million pounds.

Exports, however, far exceed imports. The ratio could be as high as 5 to 1, but no lower than 2 to 1, it's generally conceded. The discrepancy can probably be explained by the fact that some estimates include butanol shipments and some don't.

Indicated from the foregoing discussion is that domestic usage of 2-ethylhexanol, isooctanol and isodecanol in phthalate plasticizers, the major end-use, is growing faster than anticipated and that a large market currently exists for these products abroad.

These considerations plus the fact that a completely-integrated operation is cheaper and controllable have already spurred new oxo capacity and it's reasonable to assume that more will be coming as the back-integration trend in chemicals gains momentum.

Price Trends

Advanced
None
Reduced
None
Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Oct. 28, 1960
130.02	130.02	130.02	130.75

For Current Prices See Page 10

Chloroacetic Acid—August imports of chloroacetic acid and anhydride, totaling 248,460 pounds, were valued at $41,591 and dutied at $3,105, according to the Foreign Trade & Economics Operations Division of the Bureau of Census, US Department of Commerce.

Shipping here were: The Netherlands, 142,500 pounds, valued at $22,515 and dutied at $1,781; France, 89,948 pounds, valued at $13,042 and dutied at $1,124; and West Germany, 16,012 pounds, valued at $6,034 and dutied at $200.

Formaldehyde—Of interest to formaldehyde producers—particularly those on the west coast where plywood-bonding resins are the largest single application for the chemical—is the continuing downtrend in plywood imports.

For the first half of '61, hardwood plywood imports dropped 20 percent below volume in the comparable period of '60: 464 million square feet, surface measure, compared with 581 million.

The decline continued the downtrend which saw imports last year fall some 23 percent—to 1,025 million square feet from 1,330 million in the peak year of '59.

Accounting for the dropoff, reportedly, is the accumulation of a large plywood inventory. This was created when housing starts in '60 fell considerably below the '59 level, and further aggravated by poor weather through the spring of 1961, which also adversely affected home construction.

More than 90 percent of all US hardwood plywood imports are supplied by Japan (63 percent), Philippine Republic, Taiwan, Finland, Canada, Surinam, and French Equatorial Africa. About 99 percent of all imports are hardwood plywood.

Glycerine—For the first eight months of 1961, the glycerine statistical was (1960 figures in parentheses): production, 188,400,000 pounds (204,300,000); disappearance, 179,800,000 (185,700,000); imports, 12.3 million (8.8 million); exports, 10.2 million (14 million); stocks remaining in producers facilities, 67 million (51.5 million).

Methylene Chloride—A major chemicals producer reports the development and commercial availability of a stabilized methylene chloride.

The new product reportedly has special utility in pressurized paints because the specially designed inhibitor system reduces attack on aluminum, reduces catalytic reactions triggered by iron, and gives superior stability in solvent blends with toluene and a range of aromatic solvents.

"Higher solid paints systems with consequent greater area coverage are also possible from use of 'Methylene Chloride-S'," a spokesman for the firm says.

The chemical is said to have the same strong solvating effect on resins and the same non-flammability, low toxicity and general property behavior as the technical product.

"Methylene Chloride-S" is also priced the same as the technical grade: 11¼c. to 12½c. a pound, in tankcar to truckload drum quantities.

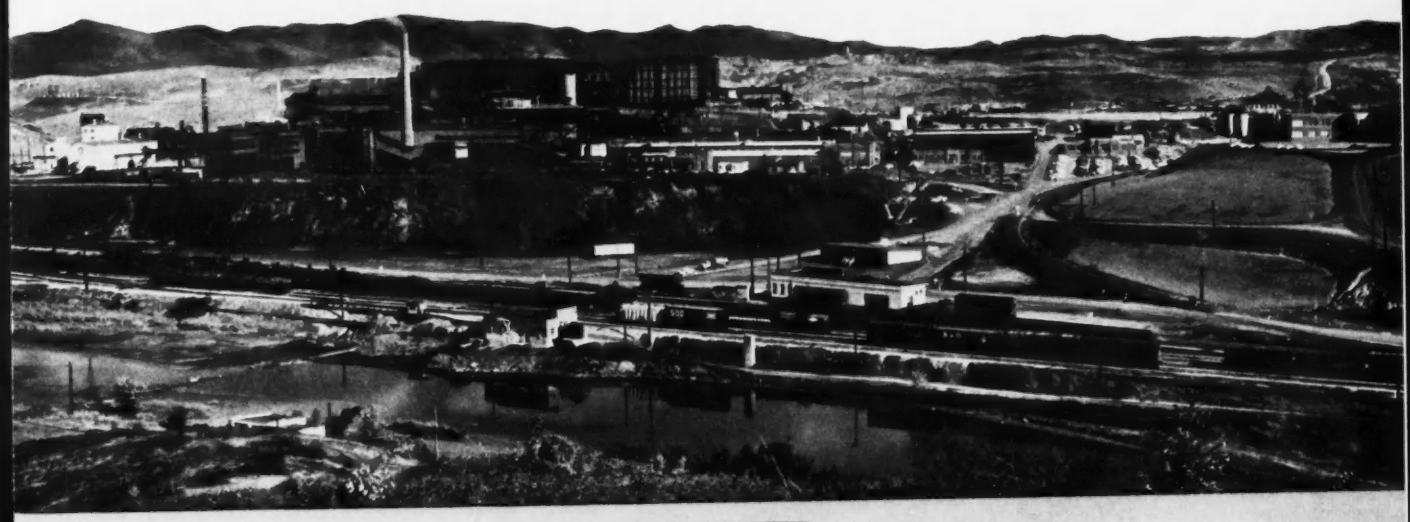
Molasses — Hawaiian cane blackstrap production in September at 6,550,839 gallons, was 25 percent less than in August but 33 percent more than in September, 1960. Cumulative output for the first nine months of 1961 was 49,332,303 gal-

TENNESSEE CORPORATION

CHEMICAL PRODUCTS

FROM OUR

MINES AND PLANTS



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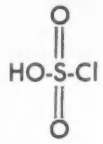
CHLOROSULFONIC ACID



ANALYSIS	
Assay	98-99%
SO_3	Max. 0.5%
HCl	Max. 0.5%
Fe	Max. 10 ppm
Sediment	None
Color:	Water white to NFA 4

Clear Liquid

Sulfonating agent in production of sulfa drugs, pharmaceuticals, synthetic detergents and wetting agents, production of ion exchange resins, cosmetics, rosaniline, alizarin, puperine and other organic chemicals and intermediates.

Tank cars, tank trucks (glass-lined)
55-gallon stainless steel drums

COP-O-ZINK*

Green Powder

ANALYSIS	
Cu	48%
Zn	4%

Neutral copper fungicide utilizing synergistic effect of copper and zinc.

50-pound multiwall bags
Cases of 12 - 4-pound bags

COPPER CARBONATE, DENSE

$CuCO_3 \cdot Cu(OH)_2$

Dark Green Powder
Fine Powder

ANALYSIS	
Cu	55.00%
HCl insols.	0.00%
SO_4 (as basic $CuSO_4$)	0.232%
SO_4 (as Na_2SO_4)	0.018%
Fe	0.040%
Cl	0.000%
NO_3	0.000%
Alkalies and Earths	0.014%

Used in manufacture of copper napthtenates, soaps and salts; paint and varnish pigments, fungicides, frits, cosmetic preparations; as a source of copper in electro-plating and poultry feeds; and in seed treating.

100-pound multiwall bags **400-pound fibre drums**

COPPER CARBONATE, LIGHT

$CuCO_3 \cdot Cu(OH)_2$

Light Green Powder
Fine Powder

ANALYSIS	
Cu	55.10%
Total S	0.29%
H_2O Soluble S	0.18%
Fe	0.20%
Zn	0.03%
Ni	0.06%
Pb	Nil
Mn	Nil
Insol. in HCl	0.06%

Uses are similar to those shown for dense copper carbonate.

50-pound multiwall bags **200-pound fibre drums**

COPPER CHLORIDE

(Cupric chloride dihydrate)

$CuCl_2 \cdot 2H_2O$

Bluish Green Crystal

ANALYSIS	
$CuCl_2 2H_2O$	Min. 98.00%
Cu	Min. 37.00%
Fe	Max. 0.04%
Zn	Max. 0.01%
SO_4	Max. 0.10%
H_2O Sol.	Min. 99.50%
Insol. as Copper Oxychloride	Max. 0.50%

Desulfurizing agent in petroleum refining; catalyst in manufacture of acrylonitrile and aniline dyestuffs; and in the oxidation of HCl to chlorine by oxygen.

400-pound polyethylene-lined fibre drums
100-pound polyethylene-laminated burlap bags

COPPER SULFATE

INDUSTRIAL CRYSTALS

$CuSO_4 \cdot 5H_2O$

Blue Crystals
100% on 8 mesh

ANALYSIS	
Cu	25.2%
Fe	0.012%
MgO	0.003%
Al_2O_3	0.008%
SiO_2	0.003%
H_2O insol.	0.010%
Zn	0.001%
Pb	0.005%
Cr	Ni
Ni	0.002%
Sn	0.00055%
As	0.000007%
Sb	0.000004%
Cl	0.0005%

In copper sulfate applications where high purity is essential, such as chemical and dyestuff manufacturing.

100-pound multiwall bags
400-pound fibre drums

COPPER SULFATE

$CuSO_4 \cdot 5H_2O$

LARGE CRYSTALS
On ⅜" x ¾", thru 1⅛" Screen

MEDIUM CRYSTALS
On ⅛" x ½", thru ⅜" x ¾" Screen

GRANULAR CRYSTALS
thru ⅛" x ½" Screen

ANALYSIS	
Cu	25.3%
Fe	0.014%
H_2O insol.	0.10%

In agriculture as a fungicide and as a fertilizer trace element; in printing inks, wood preservatives, hair dyes, paint, ore floatation, electroplating, algae control, animal feed supplements and in desulfurizing petroleum.

100-pound multiwall bags
400-pound fibre drums

COPPER SULFATE, SNOW

$CuSO_4 \cdot 5H_2O$

100% thru 14 mesh

ANALYSIS	
Cu	25.5%
CaO	0.30%
Fe	0.012%
H_2O insol.	1.00%

Used where a faster-dissolving crystal of copper sulfate is desired.

100-pound multiwall bags
400-pound fibre drums

COPPER SULFATE, POWDERED

$CuSO_4 \cdot 5H_2O$

Thru 200 mesh . 93%
Thru 300 mesh . 82%

ANALYSIS	
Cu	25.2%
Fe	0.012%
CaO	0.36%
H_2O insol.	2.0%

In agricultural and other applications where rapid solution of copper sulfate is desired.

100-pound multiwall bags

COPPER SULFATE MONOHYDRATE

$CuSO_4 \cdot H_2O$

Light Powder
Thru 200 mesh . 100%
Thru 300 mesh . 95%

ANALYSIS	
Cu	35.13%
Fe	0.017%
CaO	0.40%
Pb	0.005%
H_2O insol.	2.25%

Pigments, frits, and copper-lime fungicidal dusts.

200-pound steel drums

ES-MIN-EL*

(For soil application)

Granular

ANALYSIS	
Mn	9.87%
Cu	3.81%
Zn	3.48%
Fe	3.00%
Mg	2.42%
B	0.16%

Correction of trace element deficiencies in horticulture.

100-pound multiwall bags **Cases of 10 - 5-pound bags**

ES-MIN-EL*

(Spray/dust)

Neutral Finely Divided Powder

ANALYSIS	
Cu	5.00%
Mn	10.00%
Zn	5.00%

Correction of trace element deficiencies by foliar application.

50-pound bags **Cases of 12 - 4-pound bags**

FERRIC SULFATE

(Ferri-Floc*)

$Fe_2(SO_4)_3$

Thru 3 mesh	100%
Thru 4 mesh	97%
Thru 10 mesh	65%
Thru 20 mesh	40%

ANALYSIS	
Total Sol. Fe	20.50%
Sol. Fe+++	20.00%
Sol. Fe++	0.50%
Insols.	5.00%
Free Acid	2.00%
Moisture at 105°C	3.00%

Coagulant in water, sewage and industrial waste treatment; in manufacture of fungicides, chelated iron products chemical intermediate and in pickling metals.

Bulk closed hopper cars 65 tons
Bulk box cars 20 tons
200-250 pound fibre drums
100-pound polyethylene-lined bags

MANGANESE SULFATE

$MnSO_4$

(Fertilizer Grade)

Grey Powder

ANALYSIS	
Mn	23.6%
Screen Analysis	
60 Mesh	46.5%
40 Mesh	58.0%
20 Mesh	75.0%
10 Mesh	97.5%

For soil application, or incorporation in mixed fertilizer to correct manganese deficiency in the soil.

100-pound multiwall bags
Bulk box cars

MANGANOUS OXIDE

(Spray Nu-Manese*)

MnO

Dry Black Powder

Thru 300 mesh	84%
Thru 200 mesh	97%
Thru 100 mesh	99%
Thru 60 mesh	100%

ANALYSIS	
Mn	Min. 48%
Available O_2	0.3%
H_2O	1.0%

Foliar application as spray or dust to correct and prevent manganese deficiencies, and for use in mineral supplements for animal feedstuffs, and a chemical intermediate.

100-pound multiwall bags

MANGANOUS OXIDE

(Soil Nu-Manese*)

Thru 200 mesh	48%
Thru 100 mesh	77%
Thru 60 mesh	83%
Thru 35 mesh	94%
On 35 mesh	6%

ANALYSIS
Chemically similar to Spray Grade Nu-Manese

In mixed fertilizer or as direct soil application to correct and prevent manganese deficiencies, and a chemical intermediate.

100-pound multiwall bags

MICROGEL*

Blue Powder

Minus 1300 mesh . 74%
Minus 2600 mesh . 67%

ANALYSIS	
Cu	52.0%
Sticker	4.0%
Inert	Max. 1.0%

Neutral agricultural fungicide to which a spreader-sticker has been added.

50-pound bags **Cases of 10 - 5-pound bags**

MINERAL MIXTURES

Tennessee Corporation manufactures a number of trace mineral mixtures containing Manganese, Iron, Copper, Zinc, etc. for fertilizer manufacturers. Some are stock while others are custom-blended to the customer's specifications. Your inquiry is invited.

NU-IRON*

Iron Chelate

Fine Yellow Powder

ANALYSIS	
Fe	30%
Fe, chelated	15%

As a spray, dust or soil application to correct iron deficiencies in agriculture and horticulture, and a safener in arsenical sprays.

50-pound multiwall bags

NU-Z*

Fine Cream-White Powder

ANALYSIS	
Zn	52.0%

As a foliar application to correct zinc deficiencies in plants, and in animal nutrition.

50-pound multiwall bags

PARA-TOLUENE SULFONIC ACID

Dark Brown Semi-crystalline Solid

ANALYSIS	
Toluene Sulfonic Acid	96.9%
H_2SO_4	1.5%
Sulfones	0.7%
Hydrocarbons, Water, etc.	0.9%
Isomer distribution (total TSA basis)	
p-TSA	96%
o-TSA	4%
m-TSA	Nil

Catalyst for thermo-setting resins, alkylation, polymerization and esterification, in manufacture of dyestuff intermediates.

10-gallon open head drums 100-pound
55-gallon tight head drums 575-pound

POTASSIUM SILICOFLUORIDE

K_2SiF_6

White Crystalline Powder

ANALYSIS	
K_2SiF_6	Min. 98.0%
F	Min. 50.7%
H_2O	Max. 0.5%
Fe	Max. 0.005%
Na	Max. 0.09%

100-pound multiwall bags
125-pound LeverPak drums
400-pound LeverPak drums

Porcelain enamel frit, Mg removal from aluminum metal, latex, and inhibitor in magnesium metal casting.

SODIUM HYDROSULFITE

$Na_2S_2O_4$

White Crystalline Powder

ANALYSIS	
$Na_2S_2O_4$	Min. 94%
Alkalinity (Na_2CO_3)	0.25 to 1.75%
Zn	Max. 0.05%

250-pound LeverPak drums

Powerful reducing agent. Used in vat color reduction, bleaching soaps, paper stock, sugar, clay, etc.

*Registered Trademark

All analyses shown are typical

For further information and samples—write

TENNESSEE CORPORATION

612-629 Grant Building, Atlanta 3, Georgia

SODIUM SILICOFLUORIDE

Na_2SiF_6

White Powder or Granules (Dyed Blue if Desired)

ANALYSIS

Na_2SiF_6	Min. 98.5%
F	Min. 59.7%
Fe	Max. 0.005%
Insols.	Max. 0.16%

Aluminum metal refining, fluoridation of potable water, manufacture of foam rubber, opal glass and ceramic glazes.

100-pound multiwall bags
125-pound LeverPak drums
400-pound LeverPak drums

SUL-FON-ATE AA9

Sodium dodecyl benzene sulfonate

Crisp White Flake

ANALYSIS

Sodium Sulfonate (Active)	90.0%
Inorganic salts	8.0%
Unsulfonated organics	0.5%
Moisture	1.5%

Anionic wetting agent. Alkyl aryl sulfonate.

51-gallon LeverPak fibre drums, 125 pounds net

SUL-FON-ATE AA10

Sodium dodecyl benzene sulfonate

Crisp White Flake

ANALYSIS

Sodium Sulfonate (Active)	Min. 96%
Inorganic salts	Max. 3.0%
H_2O	Max. 3.0%

Anionic wetting agent. Low salt content alkyl aryl sulfonate.

51-gallon LeverPak fibre drums, 125 pounds net

SUL-FON-ATE AAT

Triethanolamine salt of dodecyl benzene sulfonic acid

Viscous Amber Liquid

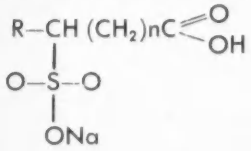
ANALYSIS

Triethanolamine sulfonate	50.0%
Triethanolamine sulfate	1.0%
Unreacted organics	0.8%
H_2O	48.2%

In liquid detergents and textiles. Has high solubility and excellent surface active properties.

55-gallon drums, 480 pounds net

SUL-FON-ATE OA-5



Sulfonated oleic acid, sodium salt

Light Brown Liquid

ANALYSIS

Active ingred.	43.5%
Oleic Acid	3.3%
Inorganic Sulfate	4.0%
H_2O	49.2%

Anionic wetting agent efficient at extremes of pH. Low foamer. This is a true sulfonate (C-S linkage) making it an extremely stable compound.

55-gallon heresite-lined steel drums, 500 pounds net

SULFONIC ACID AA

Dodecyl benzene sulfonic acid

Dark Viscous Liquid

ANALYSIS

Active ingredient	94%
H_2SO_4	1.5%
Unreacted alkylate	1.5%
H_2O	3%

High active sulfonic acid with low sulfuric acid content used in manufacturing detergents and wetting agents.

55-gallon steel drums, 475 pounds net

*Registered Trademark

All analyses shown are typical

SULFUR DIOXIDE

SO_2

Compressed Gas

ANALYSIS

SO_2	Min. 99.9%
H_2O	Max. 0.01%
Residue	Max. 0.006%

Chemical manufacturing, cellulose pulp, clay, glue, petroleum refining, food processing, glass making, soya protein, metallurgical processing, chromium waste treatment, starch refining, sugar refining, textiles and water treatment.

150-pound cylinders
1-ton drums
Multiunit tank cars
Single unit tank cars

SULFURIC ACID

H_2SO_4

Clear Viscous Liquid

ANALYSIS

60° Baume	77.67% H_2SO_4
66° Baume	93.2% H_2SO_4
98% Sul. Acid	98% H_2SO_4
20% Oleum	104.5% H_2SO_4
25% Oleum	105.62% H_2SO_4
30% Oleum	106.75% H_2SO_4
65% Oleum	114.63% H_2SO_4

Serving the requirements of the Southeast and adjacent areas.

Tank cars
Tank trucks

TENNESSEE "26"*

Copper Fungicide

Green Powder

Minus 20 micron 100%
Minus 11 micron 94%

ANALYSIS

Cu	26%

Neutral copper fungicide for application to vegetables and fruits

50-pound multiwall bags
48-pound cases of 6-pound bags

TRI-BASIC COPPER SULFATE

$CuSO_4 \cdot 3Cu(OH)_2 \cdot H_2O$

Fine Green Powder

Water Insoluble

ANALYSIS

Cu	53.54%

Mean part. dia. 0.5 micron

Neutral, compatible fungicide applied to foliage as spray or dust for control of disease on vegetables, fruits, and ornamentals.

50-pound multiwall bags
48-pound cases, 4 or 6-pound bags

ZINC OXIDE, SECONDARY

ZnO

Cream-white Powder

ANALYSIS

ZnO	99.10%
Fe	0.03%
Pb	0.02%
H_2S metals	0.013%
As	Nil

As an accelerator in rubber, in viscose rayon, in agriculture for correction of nutritional deficiencies, in animals and plants.

50-pound multiwall bags

ZINC SULFATE MONOHYDRATE

$ZnSO_4 \cdot H_2O$

White Powder

ANALYSIS

Zn	36.00%
Fe	0.26%
Heavy metals	0.01%
Free moisture	1.00%

Fertilizers, organic fungicides, animal and poultry feeds, glue manufacture.

50-pound multiwall bags

For further information and samples—write

TENNESSEE CORPORATION

TENNESSEE CORPORATION

612-629 Grant Building, Atlanta 3, Georgia

Aliphatic Organics

lons, 12 percent above that of the comparable period a year earlier (43,332,303 gallons).

Puerto Rico shipments of blackstrap to the US mainland totaled 22.7 million gallons in the first half of the year, double the 11.6 million shipped in the first six months of 1960.

Markets for feeding cane molasses continued their downward trend in the South and Midwest, but held steady on the West Coast during the week ended October 17. Expected larger supplies from Louisiana, Agricultural Marketing Service says, seemed to be the primary weakening factor.

Sucrose—After six weeks of negotiation in Geneva, Switzerland, the 50-nation international sugar conference has adjourned until the end of November.

The break-up came last week when Cuban demands for a larger export quota resulted in a deadlock. Cuba, backed by the Soviet Union, insisted on an export quota in excess of 7 million tons, about three times greater than its previous quota. Such a quota was unacceptable to most of the conference members.

Sometimes it's better to let Eastman make it

Got a production problem? Does it involve the manufacture of a compound that's not generally available in the quantity or purity you require? Then consider this. We are equipped for and experienced in synthesis on a custom basis for quantities in the larger-than-laboratory-but-less-than-tankcar range. For information about this service, or a quotation, write *Distillation Products Industries,* Eastman Organic Chemicals | Department, Rochester 3, N. Y.

DPi

DISTILLATION PRODUCTS INDUSTRIES
is a division of
EASTMAN KODAK COMPANY

Vinyl Chloride Monomer—Two major producers of vinyl chloric monomer announced last week that they were boosting the price from 7½c. to 8c. a pound on November 1.

Previously, three other producers of the monomer had issued higher schedules, to be effective November 1. As only one was a major open-market seller, however, there were serious doubts that the change would go through.

Aliphatic Organic Briefs

ABS PLANT: B. F. Goodrich Chemical Company's ABS plastics materials plant at Louisville, Ky., on which construction began last May, is all set to go three months ahead of schedule. Greatly increased demands for the versatile resins account for the big push, the Cleveland, Ohio, firm says.

HIGH-IMPACT ACRYLIC: Rohm & Haas Company, Philadelphia, is now offering "Implex R," a new grade of acrylic molding powder that reportedly doubles the highest impact strength previously available in the "Implex" high-impact acrylic family. It is also said to have a high degree of transparency in natural color, which increases the range of color possibilities and adds to the luster and color depth of molded parts.

WYANDOTTE'S LAMENT: Wyandotte Chemical Corporation, reporting a third-quarter sales increase of 5 percent and a rise in net earnings to $1.14 a share from $1.06 in the same period in 1960, explains to stockholders that "continuing cost-price pressures, accentuated by the lowest prices in history for ethylene glycol, prevented us from achieving the profit that normally could be expected from the record volume for the quarter."

Garvey Succeeds Saltzman As Solvents Chief at Esso

Paul D. Garvey has been named manager of solvents sales for the Esso Standard Region of Humble Oil & Refining Company, succeeding A. L. Saltzman, who will retire at the end of the year. Mr. Garvey has been assistant manager of solvents sales for Esso.

Mr. Saltzman is retiring after more than thirty-nine years of service. He joined the Esso organization with its research affiliate in 1922.

After serving as manager of industrial sales in New Jersey, he moved to New York in 1945 as assistant manager of solvents sale. He has headed solvent sales since 1956.

Nearly all of Mr. Garvey's company career has been in solvents sales. He became assistant manager in early 1956 and returned to the post in 1958 after a special assignment at the company's Tennessee-Arkansas marketing headquarters in Memphis, Tenn.

MCA to Meet at Commodore

Manufacturing Chemists' Association will hold its 1961 semi-annual meeting and mid-year conference at the Commodore hotel, New York. The date: Tuesday, November 21. The program, as usual, will consist of a series of six panels on a wide variety of management topics.

Chemical Marketer

—*Continued from page 7*

Smucker while otherwise upholding the order.

The government appealed the decision to the Supreme Court, contending first that the court had no right to narrow the scope of the order, and secondly, the commission was acting within its authority in not limiting its order to transactions solely between the two principles involved.

It is the argument of the government that the FTC has "wide discretion in its choice of a remedy deemed adequate to cope with unlawful practices," and having found violations of the law, the commission is "fully justified in prohibiting Broch from engaging in such illegal practices generally."

Piperazine Facility

—*Continued from page 5*

ties for large-scale development work on new products and processes. Several piperazine derivatives are also included in the expansion project.

This will be the third major operating facility to be activated at the Conroe plant, where the company now produces morpholine, an intermediate used in surface active agents, and a wide range of higher molecular weight polyols for urethanes and other uses. The Conroe plant was purchased by Jefferson in early 1960. After extensive renovation, it went on-stream in October of the same year.

DID YOU KNOW

1. That as far back as 1850, scientists such as Wurtz and Hofmann were working on diethylamine?
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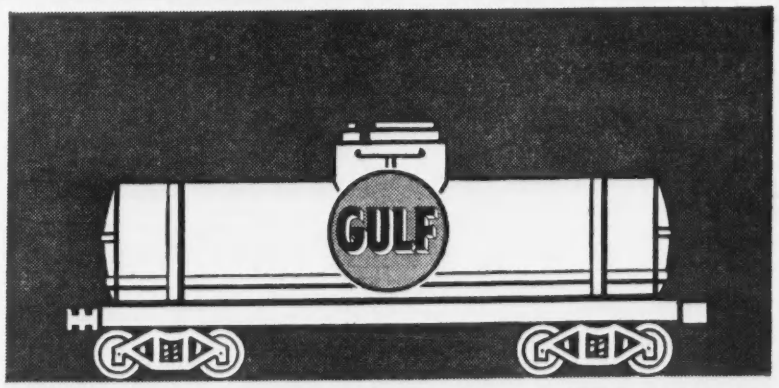

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Columbian Carbon Opens A New Dispersion Facility

Columbian Carbon Company has started operations at its new highly automated dispersion plant in the ship canal area of Houston, Tex.

The plant, with a capacity of approximately 8 million pounds of concentrate a year, is designed for production of dispersions of carbon black in both low density and high density polyethylene, as well as in polypropylenes.

The plant is designed to produce top quality dispersions with a minimum of manpower, the company says. Blends can be made in amounts of up to 30,000 pounds. Facilities are available for both pipe concentrates and cable grades of concentrate to Bell Laboratory specifications.

GSA Slates Offering Of More 'Longhorn' Tin

Another sale of "Longhorn" brand pig tin—the sixth offering of tin from the inventory of the old Texas City tin smelters—is to be made next month by General Services Administration.

The agency says it will receive bids for the purchase of upwards of 1,000 long tons of the metal until 11 a.m., EST, November 8.

The new offering is in lots of ten tons each, including eighty-five lots of Grade A and fifteen of Grade B, stored at Wardwell, Ohio.

Since sales of tin from the old Texas smelter stock were begun last July, GSA has sold 2,387 tons out of an inventory of 3,933 tons.

Tung Year

—Continued from page 5

the US and Europe, and with limited supplies available from Red China, the department says, world prices are expected to be equal to or above the domestic support rate. This makes it unlikely that tung oil will enter the US in such quantities as to interfere with the price support program.

Claude Beebe, spokesman for the Tung Growers Council of America, and Saul Stone, counsel for the American Tung Oil Association, sharply disputed the department's conclusions and urged the commission to recommend against changing a system that has produced "an ideal situation" for the domestic industry.

Mr. Beebe, editor and publisher of *Tung World*, estimates production from the 1961 nut crop at 35 million pounds of oil which, together with carryover stocks of 10 million pounds and 26 million pounds of quota imports, will make 71 million pounds of oil available to fill a demand for 50 million pounds in the new year.

If a quota on imports is to be eliminated, he urges that a fee system then be imposed amounting to about 3 cents a pound to provide a permanent, effective—yet flexible—program of automatic regulation of imports.

This Year's Tung Crop Estimated

Mr. Stone estimates this year's crop of nuts will produce about 31 million pounds of oil and places the carryover figure at the end of the current marketing year at 13.5 million pounds.

With the 26 million quota oil added to these totals, the US supply for the new marketing year will approximate 70.5 million pounds to accommodate an estimated consumption which he places at 42 million pounds.

Looking ahead to October 31, 1962, Mr. Stone predicted a carryover of 28.5 million pounds of oil which, when added to the import quota of 26 million pounds, provides sufficient insurance to meet all domestic needs "if there isn't a drop of oil produced in the US in 1962."

"A raise in the existing quota or the elimination of quota restrictions would be disastrous to the domestic tung industry," Mr. Stone says, "for it would require the entire domestic crop to be taken over by the Department of Agriculture.

"Red China may hold the key to this entire situation. Red China is in a position to determine whether United States tung oil is forced into loan if the quota is eliminated or even if raised.

"If Red China, now out of the world market, goes back into this market, then all of the South American oil will be shipped into this country and all of the domestic oil will be taken over by the Commodity Credit Corporation."

DuPont Fiber Sales

—Continued from page 5

and promotion services to German textile fibers customers.

The decision to establish duPont Chemie GmbH follows an agreement between duPont de Nemours International SA and the Ernst Beck organization of Wuppertal-Barmen, sales representatives of duPont fibers in Germany since 1954. As a result of this agreement, duPont Chemie GmbH will take over the sales around the end of this year and most of the personnel of the Ernst Beck organization will be employed by the new German company. Ernst Beck will be a member of the board of directors of duPont Chemie GmbH.

Charles D. Wenrich, marketing manager in the New York office of the parent company's textile fibers department, will be transferred to Germany as managing director of the new sales subsidiary. Mr. Wenrich has had over sixteen years' textile fibers experience in sales and marketing of duPont fibers.

To meet the growing needs of European customers, a new plant, owned and operated by duPont de Nemours (Nederland) NV will soon begin production of "Orlon" acrylic fiber at Dordrecht, the Netherlands.

DuPont de Nemours International is a unit of E. I. duPont de Nemours & Co., Wilmington, Del.

PPG Is Readying Site For Synthetic Resin Unit

Ground has been broken for Pittsburgh Plate Glass Company's new 31 million synthetic resins plant at Circleville, Ohio. Site preparation will begin this week, and construction will be under way a month hence.

The new facility will turn out many resins developed through PPG research, the company says. The great bulk of production will be used by PPG for coatings manufacture at its own plants.

Included in the facility will be a main production building, a tank farm, a general service structure and an office building.

Final phase of construction will be installation of new production processes. These are now being developed by PPG engineers. The processes are said to be highly complex, involving custom fabrication equipment. Full operations are expected late in 1962.

Phosphate Venture

—Continued from page 3

reported to have 39.8 percent, and Tennessee 1.7 percent.

In 1959, latest year for which regional figures are available, Florida produced 11,009,000 long tons of phosphate rock, while the two western states supplied only 2,188,000 tons. Production in Tennessee amounted to 1,854,000 tons.

In a related move, IMC recently sold its industrial grade phosphate reserves in Tennessee to concentrate all its eastern production in Florida.

The IMC-Husky agreement allows up to five years for development of a final plan for undertaking the joint producing venture.

In the event Husky should, for any reason, decide not to enter the project, the agreement provides "an equitable basis for sale of the deposits to IMC."

S 1552 Patent Hearings

—Continued from page 7

fessor of economics Princeton University, and Dr. Colston E. Warne, professor of economics Amherst College and president of Consumers Union.

• Wednesday—Dr. A. Dale Console, former chief medical director of E. R. Squibb & Sons, a division of Olin Mathieson Chemical Corporation; Dr. Alonzo S. Yerby, director of the Bureau of Medical Services, Department of Welfare, New York City, and Joseph Gray Jackson, chairman of the Patent, Trademark and Copyright Law Section of the American Bar Association.

• Thursday—Dr. Frederick H. Meyers, professor of pharmacology of the University of California, and Mr. Larson of the American Patent Law Association.

N Glut Is Over

—Continued from page 5

construction of about 1.5 million tons of capacity in the five-year period following 1950. In the twenty years from 1940 to 1960, capacity rose from 380,000 tons to 4 million tons, Mr. Riley reports.

As indicative of the product's future, he says his company anticipates 1961 sales of $13.7 million, up from $11.9 million in 1960. Earnings are expected to total $1.70 a share, as against 1960 earnings of $1 a share.

Based on normal weather conditions during the spring of 1962," he indicates, "we estimate that our 1962 sales will be approximately $17 million, an increase of approximately 24 percent over 1961; and our pre-tax profit will be about $3 million."

Agricultural Chemicals

Crop yields must be doubled. A total of 122 million new crop acres must be created. Food to nourish 370 million people must be grown each year. These imperatives need not be met tomorrow but will have to be accomplished over the next fifty years if the US agricultural industry is to keep pace with a burgeoning population. So says National Plant Food Institute in its prediction of future farm requirements. To fertilizer and pesticide men now gliding along in the slack period between seasons, NPFI's estimate of a growing market is welcome news.

By the year 2010 the US population will rise to 370 million according to latest government figures, and to supply expanding cities and road networks with *lebensraum* an estimated 25 million acres of crop land will have to be taken out of production. Present crop land is about 478 million acres.

In order to supply food for the vastly expanded population of the next half-century, 122 million acres of new crop land will have to be added by clearing, draining and cropping pasture lands. To say that fertilizer demand will have to increase in order to meet these needs is at best superfluous.

In today's situation the US is already meeting its food demands and accumulating surpluses through the extended use of fertilizer and technology.

Just how productive the US system is because of emphasis upon fertilizer and technology can be seen through comparison with the USSR.

A recent study by the National Industrial Conference Board reveals that the US outproduces the Soviet Union in agricultural products by sixty percent despite the fact that the Soviets employ seven farm workers for every American engaged in farming.

One key to the US superiority lies in the use of fertilizer.

In 1959, for example, US fertilizer consumption was 7.4 million tons as against the Soviet Union's 2.6 million tons. This concentration on fertilizer is even more intensely pointed up when it's realized that the US's 7.6 million tons were distributed over 329 million sown acres, as against the 2.6 million tons of Soviet fertilizer distributed over 501 million sown acres.

The result of heavy US emphasis upon fertilizer and other capital resources is that of a dozen major crops the US surpassed the Soviets in yield per acre on all save one.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Oct. 28, 1960
111.58	111.58	110.18	111.27

For Current Prices See Page 10

Animal and Plant Foods

Anhydrous Ammonia—Production of synthetic anhydrous ammonia rose to 417,201 short tons in August from a July total of 411,532 tons. Production in August a year ago was 380,339 tons.

Stocks on August 31 stood at 206,261 tons, as against 176,317 tons at the end of the preceding month.

Lime—Sale and consumption of lime for agricultural uses in August displayed an 18.6 percent increase over the previous month according to a report from the Bureau of Mines.

August consumption was 15,295 tons, as against a revised July figure of 12,445 tons. In August 1960 a total of 12,093 tons was sold.

Quicklime consumption in August for agricultural purposes was reckoned at 9,113 tons, up from July's 5,982 tons and well above the 5,480 tons sold in August of last year.

Hydrated lime sales in August amounted to 6,182 tons, down from the revised figure of 6,463 tons reported in July, and below the 6,613 tons sold in August, 1960.

In the January-August period a total of 155,603 tons was sold, well above the 114,608 tons sold in the comparable period last year.

Nitrogen Solutions—Reports from trade sources indicate a relatively inactive market for nitrogen solutions for fertilizer manufacture.

Direct applications sales of nitrogen solutions are maintaining a better pace, however, although even in this area progress is currently rated as modest.

Output of nitrogen solutions in August climbed to 54,504 short tons in August, up from the revised figure of 48,730 tons computed for July. Production a year ago in August was 50,697 tons.

Phosphate Rock—Effective November 1 a 23.1c. a ton increase in the price of Florida phosphate rock will be instituted across the board.

The increase is based on a rise in the cost of labor which now is figured at $1.72, as against a former level of $1.64.

Current demand for phosphate rock is reported well sustained with supplies ample.

According to one phosphate rock supplier the fertilizer picture for the year is shaping up as a good one although the Fall demand is behind expectations.

Reason for the fourth quarter fall-off in fertilizer, trade observers remark, is accounted for in part by dry weather and by the delay in the federal government's announcement of the wheat acreage program for next season.

Urea—Slow business is reported. Inventory buildup prior to the October price increase is carrying consumers along and no increase in sales is expected much before the end of November.

Pesticides

Infestation of cotton leafworms are expected to cut Egypt's '61-'62 cotton crop 27 percent below last year's harvest according to the first Egyptian government crop estimates.

In August a US manufacturer airlifted 2 million pounds of insecticide to Egypt on an emergency order. At that time it was expected that 3 million more pounds of the insecticide would be shipped to Egypt if required, and by the tone of the recent government report it would appear that the additional material is urgently needed.

Agricultural Chemical Briefs

SMITH-DOUGLASS PICKS AGENT: Smith-Douglass Company, Norfolk, Va., has appointed Arthur R. Hill, Inc., Seattle, Wash., supplier of feed ingredients, northwest sales agent for its defluorinated phosphated and dicalcium phosphate.

CHEMICAL OUTLOOK FOR '62: Ira T. Ellis, economist for E. I. duPont de Nemours & Co., Wilmington, Del., last week predicted that production of chemicals and chemical products will rise about 10 percent next year. Mr. Ellis bases his prediction on an estimated climb of at least 8 percent in total industrial production.

Superphosphate & Other Phosphatic Fertilizer Production

Following are data compiled by the Bureau of Census indicating superphosphates and other phosphatic fertilizer produced and shipped in the United States, January, 1961 through August, 1961. Included are percentage changes. All material is 100 percent P_2O_5 in short tons.

	In short tons 100 Percent P_2O_5 Jan.-Aug., 1961		*Percentage change from 1959-60 Jan.-Aug., 1960*	
	Production	*Shipments*	*Production*	*Shipments*
Normal and enriched	831,935	442,976	— 4	— 3
Concentrated	679,475	625,101	+ 2	— 3
Other phosphate fertilizer	262,128	264,632	— 1	+ 7
Total	1,733,538	1,332,709	— 2	— 1

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Alpco 16	Black-Brown	188	48	112
Alpco 20	Dark Amber	186	50	105
Alpco 400	Amber	181	54	100
Alpco 431	Light Amber	183	46	112
Alpco 434	Yellow Amber	185	41	120
Alpco PX-100	Black-Brown	187	42	113
Alpco AX-200	Brown	187	48	141

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Cumene's Expansion Stampede Raises a Major Question: How Come?

OPD Special 'Depth' Report on Cumene

—*Continued from page 3*

ment stage. No doubt the facts will be known a couple of months hence or sooner. But right now Amoco is silent.

If this development isn't perplexing enough, take a look at the move by Gulf Oil Corporation into the European market for phenol and acetone in the face of the lowest European phenol prices in years.

Cumene: Philadelphia to Sardinia

Gulf is now building a cumene plant in Philadelphia, the output of which is slated to go to Italian subsidiary Societa Italiana Resine Gulf at Porto Torres, Sardinia, for a 70,000-ton-a-year phenol and acetone plant.

This means that to supply the plant at its capacity, Gulf would have to build a 160-million-pound-a-year cumene plant in Philadelphia. The company has never announced its capacity officially.

Latest word is that Gulf is actively soliciting business in the US for cumene as well. This can be interpreted as meaning that the Philadelphia operations will be eventually well in excess of 160 million pounds annually, provided a chunk of business can be rounded up here and there.

The Porto Torres plant is slated to start up in mid-1962, but some observers here are wondering if the phenol situation will straighten itself out by that time.

American phenol producers are about to get themselves in dutch with the European Common Market for undercutting phenol prices, particularly in Italy, where the material has been laid down reportedly for as low as 11¼ cents a pound.

ECM members are so sore about it that there is talk that the US industry will be called to account, that dumping may be charged and that a tariff will be raised by ECM against imported phenol.

Some European phenol plants are operating beneath 60 percent of capacity, it's reported, and one industry spokesman on the continent maintains that if the situation continues, some plants will have to be shut down because of the glut.

Inside the Tariff Barriers

Gulf sails serenely ahead, however, and it's pointed out that the Sardinia plant will be within the Common Market area, unaffected by any proposed tariffs on phenol.

Dow Chemical Company also has a strong stake in the European phenol market. Together with the Dutch firm Stamicarbon, the Midland, Mich., concern is putting up a 25,000-ton-a-year plant at Niewe Waterweg, Netherlands.

While American producers have come under the guns of ECM members for shading prices, one observer here points out that with the current worldwide oversupply, no single culprit can be accused.

Reportedly, United Kingdom and European companies are just as responsible for price-hacking as US producers. And the cutting pervades end-products markets, too, with some resin producers said to be pricing their materials almost on a day-by-day basis.

If the phenol surplus is bad, the acetone picture isn't much better in Europe. Last spring, a surplus of acetone amounting to some 30,000 tons had accumulated, with no immediate prospects of working off the excess stocks.

Hence, the combination phenol-acetone glut bodes ill for a new producer. Price-cutting has been attributed to efforts on the part of one or two producers to open up European markets. However, consensus is that even a tariff wall would not stabilize the situation.

Should the "inner six" set up tariffs, phenol makers in the "outer seven" and other parts of the world with a current slice of ECM markets will still fight to retain their share of business, duties or no, in the face of possible plant shutdowns as an alternative.

Further, the rash of expansion throughout Europe on both sides of the iron curtain, just recently on stream or now in construction, makes a phenol-acetone venture look somewhat less than attractive at this stage. The following developments are taking place:

- Phenolchemie GmbH, Gladbeck, West Germany, is in the throes of expansion to 200 million pounds a year of phenol and 120 million pounds of acetone. Some 330 million pounds of cumene will be supplied via pipe from Chemische Werke Huels.

Hydrocarbon Expands Capacity

- British Hydrocarbon, Ltd., has put the finishing touches on a 33-million-pound phenol unit at Grangemouth.
- According to available information, the USSR and Rumania are rapidly expanding cumene-phenol-acetone output, and some western observers believe it's only a matter of time until the Soviets start controlled flooding of western markets.

At Grosny, near the Caspian Sea, is reputedly the world's first cumene-phenol plant. Current capacity is estimated at 100 million pounds a year of phenol and 60 million pounds of acetone. The unit went on stream in 1949.

USSR publications report recent expansions or completions of cumene-phenol plants at Novokuybyshevsk and Chernorechensk, near Gorkiy.

Rumania has two cumene-phenol-acetone units under construction, at Fagaras and Borzesti-Onesti. Poland and Czechoslovakia are also in the picture.

In the rest of the world, as in Europe, there appears to be mounting phenol over-supply. Japan has one cumene unit on stream now making 33 million pounds of phenol annually at Iwakuni, and will have an additional 29 million pounds on stream at Yokkaichi soon.

US Not Left at the Post

The United States hasn't lagged in recent months, either. Most recent developments include:

- Announcement by Monsanto Chemical Company of a cumene-phenol-acetone unit at Texas City, Tex., requiring at least 120 million pounds of cumene for 75 million pounds of phenol and 45 million pounds of acetone.
- Gulf's announcement that it will start building "the world's largest" cumene unit in Philadelphia for shipment overseas to its Sardinian subsidiary.
- Completion of expansion of phenol capacity by Allied Chemical Corporation at Frankford, Pa., raising output to 100 million pounds a year of phenol, with Texaco, Inc., supplying 70 million pounds a year of cumene to the unit.
- Reports that Amoco is about to build a 50-million-pound-a-year cumene installation at Texas City. While the plant is said to be "captive" for a "development item," outsiders are afraid it's the precursor of more phenol-acetone capacity.

This feverish activity leads to the question: Has the cumene vogue about run its course? Probably not, since rumors are rife about petrochemical manufacturers with benzene and propylene on their hands running around trying to line up potential customers.

Price Pressure Is On

Yet the inevitable conclusion is that with phenol and acetone capacities overbuilt, cumene must be priced very attractively in order to entice more phenol-acetone producers into the market—perhaps even below the current 5-8-cent-per-pound contract level.

In fact, some observers indicate, in order to move cumene, benzene must be charged into the converter at considerably less than current market prices.

Aside from reduced profits brought on by over-capacity, there is a change in technological thinking regarding phenol manufacture, particularly among would-be raw material suppliers in the petroleum industry.

The Standard Oil Company of California phenol-ex-toluene process is being employed by Dow Chemical at its Kalama, Wash., installation. Dow expects to gain by using a cheaper raw material than the more conventional benzene or cumene.

But several oil companies are cheerleading loudly for phenol-from-cyclohexane processes right now. Potential producers in the United Kingdom are showing most interest at present, but US phenol makers are also studying the possibility.

It has long been known that the cyclohexane route via cyclohexanol or cyclohexanone (either of which convert into phenol) by means of catalytic dehydrogenation is a good way to get phenol—with a minimum of plaguey byproducts such as now harass producers who start with benzene.

But with increased need for production economies in the face of over-supply and keen competition in pricing, combined with expanding cyclohexane output, it may not be too long before cyclo breaks into the commercial phenol picture.

Amoco May Have an Answer

A possible hope for cumene lies with Amoco. Should the company come up with a hot item not now made from cumene, it conceivably could free the latter from the shackles of phenol-acetone as its largest single end-use.

At this point it's hard to figure what Amoco's material is. Guesses range from something akin to trimellitic anhydride (which Amoco now makes from pseudocumene) to benzoic acid, to isopropyl anthraquinones and hydrogen peroxide.

One source suggests the possibility of a cumene-bisphenol A direct route; another, a possible sulfonation of cumene into a detergent alkylate.

Another current end-use for cumene—a-methylstyrene—has been in the dol-

—*Continued on page 44*

CUMENE WORLD REQUIREMENTS: DECEMBER, 1962

			Cumene	*Phenol*	*Acetone*
UNITED STATES:			Millions of Pounds		
Allied	Frankford, Pa.		100	100	60
Amoco*	Texas City, Tex.		50	—	—
California Chemical	Richmond, Calif.		80	50	30
Dow (1)	Midland, Mich.		10	—	—
Gulf (2)	Philadelphia		160	—	—
Hercules (3)	Gibbstown, N.J.		50	30	18
Monsanto	Texas City, Tex.		120	75	45
Phillips (4)	Borger, Tex.		—	—	—
Shell	Houston, Tex.		80	50	30
Texaco (5)	Westville, N.J.		70	—	—
Total US			720	305	183
FOREIGN:					
Britain	British Hydrocarbon	Grangemouth	55	33	22
Canada	BA-Shawinigan	Montreal	60	36	24
Czechoslovakia	Refinery 'Slovnaft'	Bratislava	18	11	7
France	Progil	Pont de Claix	71	44	27
France	Rhone-Poulenc	Rousillon	55	33	22
Germany, West	Phenolchemie	Gladbeck	330	200	120
Italy	Resine-Gulf (2)	Porto Torres	—	92	62
Japan	Mitsubishi	Yokkaichi	46	29	17
Japan	Mitsui	Iwakuni	55	33	22
Poland	Plock Combine (6)	Plock	—	—	—
Rumania	Refinery No. 10 (7)	Borzesti-Onesti	95	40	24
Rumania	Combine No. 1	Fagaras	11	7	4
USSR	Grosny Chemical (8)	Grosny	185	100	60
USSR	Chemical Combine (9)	Novokuybyshevsk	55	33	22
USSR	Chernorechensk Plant (9)	Chernorechensk	55	33	22
Total Foreign			1,091	724	455
Total World			1,811	1,029	643

(1) Dow uses it for a-methylstyrene. (2) Most of Gulf's output goes to Societa Italiana Resine Gulf at Porto Torres, Sardinia. (3) Unit can be blocked off to make synthetic p-cresol. (4) Phillips makes limited amounts for research and development. (5) Supplies Allied's Frankford plant with balance of its cumene needs. (6) Plock combine plans unit for 1964. (7) Refinery No. 10 will supply enough cumene to make 30-35 million pounds a-methylstyrene for SBR rubber. (8) Reputed to be world's first (1949) cumene-phenol plant. Also reportedly meets a-methylstyrene needs of SKMS rubber plant in Baku. (9) Estimate.
*To use cumene for new product.

a-METHYLSTYRENE OUTPUT IN THE US

1965 . . .	*25.0 million lbs.
1962 . . .	*21.0 million lbs.
1961 . . .	*20.0 million lbs.
1960 . . .	19.7 million lbs.
1959 . . .	20.6 million lbs.
1958 . . .	21.1 million lbs.
1957 . . .	13.3 million lbs.
1956 . . .	10.5 million lbs.

*Estimate

Source: Tariff Commission

Coal Chemicals

Phthalic Producers Ponder Future As Material Tumbles to 15 Cents

Locked in a spiralling capacity race, phthalic anhydride and naphthalene producers are ruefully witnessing the first fruits of their numbers game—two price reductions in as many months for phthalic, which have tumbled the price from 19½ cents a pound to 15 cents. And, trade observers say, the mushrooming phthalic and naphthalene plants may mean further cuts in phthalic and naphthalene as well. Phthalic's growth rate is a modest 6 percent yearly, but capacity by 1963 will be up a whopping 61 percent from 1960 to 868 million pounds, while naphthalene capacity, chiefly through petronaphthalene, will boom up to 1.25 billion pounds by 1963, against capacity of 525 million pounds in 1960.

Thus, with no end-use breakthrough in sight for alkyds, plasticizers, polyesters, et al., it's estimated phthalic demand for 1963 will rise to 435 million pounds from demand this year of 370 million pounds.

Price Trends

Advanced
None

Reduced
Isophthalic acid, 2½c. per lb.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Oct. 28, 1960
119.86	119.86	119.85	117.64

For Current Prices See Page 10

Phthalic Capacity in 1963

Phthalic capacity in 1963, if all plants come on stream, will be 868 million pounds, indicating an industry operating rate of 50 percent.

To satisfy 1963 phthalic demand will be 1.25 billion pounds of naphthalene based on announced expansion. Captive naphthalene for phthalic production will take 425 million pounds, the merchant market another 220 million pounds, leaving 605 million pounds of naphthalene to be disposed of.

Lower phthalic price and the expected lower naphthalene price apparently are not deterring producers from going ahead with expansion plans for both materials, however much to the dismay of some trade observers.

Seven petronaphthalene plants are on the drawing boards or are being built. One is already in operation. Only one projected plant may be held in abeyance. The unit, a joint oil-chemical company venture to be located on the West Coast, is believed to be waiting on the successful operation of its East Coast sister plant.

All the other projected plants will come on stream, the trade believes. Most prospective petronaphthalene producers have already engaged customers or are in the process. But with the spate of material expected next year, an extremely competitive market situation is sure to develop as far as price is concerned.

Of the phthalic plants, they too appear to be firmly set for construction despite the lowered price. One producer now building predicated the construction of his plant on the basis of 14½ cent-a-pound phthalic.

Phthalic's Cyclical Pattern

How this frenzied outburst of capacity build-up came about is a question nagging the trade. Simply it's a case of history repeating itself.

Phthalic's market history is cyclical with two- and three-year production spurts followed by a year or two of digestion.

This time, however, trade observers feel the industry has accelerated too rapidly. (For a detailed study of the phthalic cyclical trend see OPD, 2/20/56.)

The naphthalene burst is explainable on the basis of the steel strike of '59-'60 which cut to the bone cokeoven and tar distillers' output, then the only naphthalene sources.

As for the boom in phthalic capacity itself, part of the answer lies in projected demand figures based on 1960 production.

In 1960 phthalic production, according to Tariff Commission figures, reached a respectable 401 million pounds—up from 1959 volume of 342 million pounds. On the basis of this increase, phthalic producers began planning to construct added facilities.

However, the 1960 production figure of 401 million pounds, according to informed sources, should show only 370 million pounds of phthalic, the balance of approximately 30 million pounds apparently being carried over into 1961 as inventory. Also carried over from 1960 into this year was 10 million pounds of phthalate plasticizers.

By mid-year phthalic was in trouble what with accumulated inventory and a downturn in alkyds, plasticizers and polyesters demand. Sales slumped, inventory mounted and customers began exerting pressure on price. Broken once down to 17½c. in the third quarter, the price was chopped again in mid-October to 15c.

Facing a 61 percent phthalic capacity build-up by 1963 (versus an annual growth of only 6 percent), producers are not in an optimistic frame of mind. How to dispose of the expected glut of phthalic is the number one problem.

Export Trade No Solution

Export trade offers no solution. Right now, the export situation is deteriorating and prices are lower than the new domestic posting. Normally accounting for about 10 percent of phthalic demand, export volume is liable to tumble under the weight of US surpluses and the increase in phthalic capacity throughout the rest of the world.

Expanded research into new end-uses, or exploitation of current applications, may help ease the phthalic over-supply situation now developing, but results from such efforts would take years to implement.

Another possibility offering itself to producers as a way out of the over-capacity maze is vertical integration, a route counter to the horizontal approach being employed by two phthalic consumers who are now building phthalic plants.

With no firm solution now apparent, however, the phthalic marketing situation for the next few years sizes up as one of supply far in excess of demand, and of prices below even the current level of 15c.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended October 21, were as follows:

Ammonia liquor	lbs.	610,271
Ammonium sulfate	lbs.	25,976,847
Benzene	gals.	2,798,028
Coaltar	gals.	14,116,850
Crude chemical oil	gals.	552,699
Solvent naphtha	gals.	92,116
Toluene	gals.	621,786
Xylene	gals.	172,718

Basic Products

Continuing a downward trend, production of steel in the week ended October 21 fell 1.4 percent from the preceding week's output.

Production for the week was 2,042,000 net tons as against 2,071,000 net tons in the preceding week.

Based on assumed 1961 steel capacity, rate of production was 70.7 percent.

Production for the year through October 22 was 76,664,000 net tons, or 9.3 percent behind the 84,481,000 net tons turned out last year in the comparable 42-week period.

Phenol—Reports from Europe indicate shipments of phenol are offloading at about 11½c. a pound.

European producers are reluctantly meeting the price while at the same time raising the cry of "dumping."

On the agenda of the GATT meeting scheduled shortly in Geneva, the phenol situation is now running free as exporters are attempting to get under the wire before restrictive agreements are initiated by the European Common Market members.

Pyridine—In addition to being tight in the US market, the pyridine shortage is also being felt in Japan.

Supply situation in Japan is termed

—Continued on page 61

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both synthetic and natural

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PHENOL

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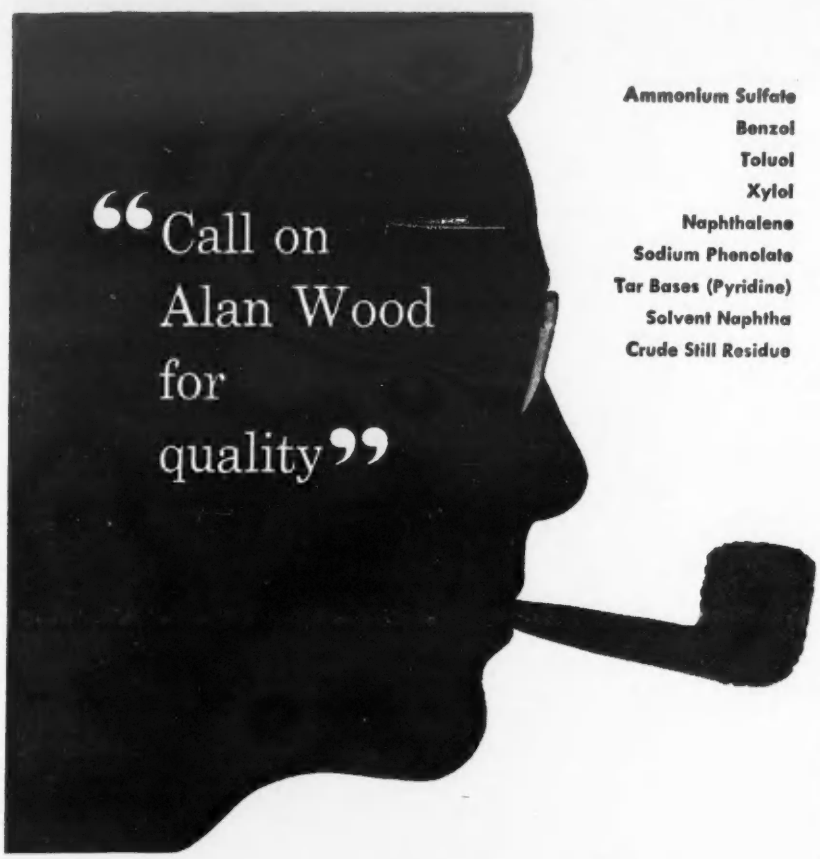

Ammonium Sulfate
Benzol
Toluol
Xylol
Naphthalene
Sodium Phenolate
Tar Bases (Pyridine)
Solvent Naphtha
Crude Still Residue

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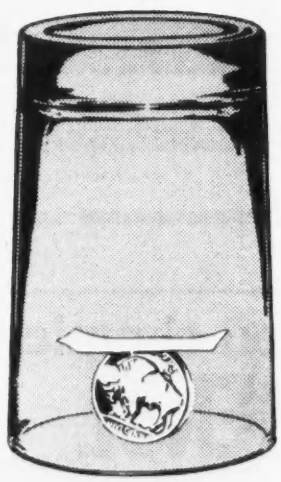

PUZZLE

??????????????????

Set a nickel on edge and balance a sliver of paper on top. Cover both with a water glass. Now, how do you remove the paper from the nickel without touching the glass?

??????????????????

There's no puzzle about product performance when you buy chemicals from United States Steel. To solve puzzler above:

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USS Chemicals

Cumene Expansion Raises a Question

OPD Special 'Depth' Report on Cumene

—*Continued from page 42*

drums for some time. Many a plastic producer has had a hard look at it, but only a few are in the business.

Dow Chemical Company is the leading exponent of the virtues of a-methylstyrene in the US. At one time, facilities in Midland were capable of making upwards of 40 million pounds a year, it's reported.

But the plant has been blocked off and is producing other types of styrene, such as vinyltoluene. It's estimated that not more than 10 million pounds of capacity are now devoted to a-methylstyrene.

Production of phenol from cumene involves output of a-methylstyrene as a byproduct. Of the cumene-phenol producers, Hercules Powder Company, California Chemical Company and Allied market byproduct a-methylstyrene.

Earlier, it was hoped that the material would find markets in large volume in the plastics field. However, a-methylstyrene does not polymerize as easily as other styrenes, and leaves some physical properties to be desired in comparison with other styrenic materials.

Cumene Study Being Reprinted

OPD's special "depth" report on cumene is being reprinted and will be available shortly. Copies may be obtained at 50 cents each (discounts on quantities of a hundred) from OIL, PAINT AND DRUG REPORTER'S Reprint Department, 30 Church Street, New York 7,

Perplexing to industry observers here is the attention being given to a-methylstyrene-butadiene rubbers in the Soviet Union. The USSR is known to have at least one large SBR plant based on a-methylstyrene.

This is thought to be a unit recently completed at Baku, down the coast of the Caspian Sea from Grosny, where a-methylstyrene is made in part directly, and in part as a byproduct of phenol operations.

Not too long ago, Russian periodicals were complaining that the Baku synthetic rubber plant was producing SBR with a rejection rate of over 50 percent, and that huge mounds of reject rubber could be seen piled outside the plant.

a-Methylstyrene? No Wonder!

A US source told OPD last week: "Well, no wonder, if they're using a-methylstyrene." It seems that this material was tried in the US during World War II research in the Akron, Ohio, rubber laboratories, and found wanting.

But several instances exist in recent technical literature of the Soviet Union in which the Russians are working full tilt on this type of rubber.

In one technical article, for example, Red scientists crow about a-methylstyrene rubber's superior aging characteristics, resistance to cold temperatures and easy workability.

In another, an all-union conference of rubber executives meets to discuss how to improve the quality of SBR rubbers to western standards, and concludes that a good step would be abandonment of a-methylstyrene rubber.

Yet despite some apparent confusion, it looks like this type of rubber is here to stay in iron curtain countries. At least, the Rumanians seem to think so.

It seems the Soviets have conned this people's paradise into putting up a 50,000-ton-a-year SBR plant based on a-methylstyrene. The details occur in the Rumanian publication "Revista de Chimie."

Rumanians Look at Technique

"The production of a-methylstyrene by catalytic dehydrogenation of isopropylbenzene is mainly performed in the USSR at the SKMS Synthetic Rubber Combine.

"The same method will be used in the Combinatul Chimic (Chemical Combine) in Borzesti-Onesti for the production of synthetic rubber."

With all this mucking about in the Eastern bloc with a-methylstyrene rubber, it must be noted that the Soviet Union plans to boost its synthetic capacity fantastically by 1965. Some 400,000 tons of polyisoprene rubbers is planned by that year.

Producers of a-methylstyrene here are wondering whether the Russians will abandon this type of SBR and, as a result, shift excess material onto world markets.

In fact, the Soviets might not be above shunting excess cumene, phenol and acetone into western channels as well, if they see way of buffeting further price structures that are already quite shaky in western Europe.

It's reported that most of the benzene now exported from Russia is coaltar benzene, and that further large amounts will be available for export as more and more petrochemical units start up.

This means that not only benzene, but its derivatives such as cumene, could be unleashed on world markets without warning at very cheap prices.

The Current Propylene Shortage

The current propylene shortage, both in the USSR and in West Europe, is the key to how soon cumene will open up. Right now, most available propylene on the continent is earmarked for polypropylene—a far more profitable product at 30-35 cents per pound than cumene at 5 cents.

But as propylene becomes more available, there undoubtedly will be more cumene capacity put up in Europe.

Hence, the squeeze is on in every direction: Phenol and acetone are in oversupply around the world; at the same time, petrochemical producers here are faced with the necessity of seeking ways to upgrade their benzene, which is rapidly nearing over-supply.

Meanwhile, the Soviet Union poses a very definite threat, perhaps ready to upset the delicate status of pricing anywhere is the world at any time.

It doesn't look as if phenol and acetone over-capacity will correct itself in the near term since, with the exception of one or two promising end-uses (such as bisphenol A), these chemicals can be considered mature.

Therefore, unless Amoco's ephemeral new product makes a big splash, the industry may have incurred just about as much cumene expansion as it can stand for the time being

Chemicals Get Accent From an Oil Refiner

—*Continued from page 7*

expected to increase Atlantic's profits by $3 million to $4 million a year, Mr. Supplee said. The projects are:

• Construction of two aromatics facilities, one within Atlantic's Port Arthur, Tex., refinery and the other a jointly-owned facility at Pure Oil Company's Smith Bluffs, Ark., refinery. "This complex will provide aromatics self-sufficiency for Atlantic and support other chemical activities," it was stated.

• Revamping of a six-year old butylene alkylation unit in the Philadelphia refinery in order to improve operations and increase capacity.

• Installation of modern wax-treating and finishing equipment, to permit higher quality and diversified production. Atlantic reportedly supplies 9.3 percent of the US wax market and 18.5 percent of the US export market.

• Installation of de-isobutaonizer fractionating towers at both refineries for production of premium gasoline.

As part of its total chemical program, Atlantic recently acquired J. P. Frank Chemical & Plastic Corporation, a producer of polyvinyl chloride plastic.

In this connection, Mr. Supplee noted that the petroleum wax industry is now facing a serious competitive threat from plastics. The answer to this problem, he said, appears to lie in wax-plastic blends. Research work has progressed favorably on such blends, leading to materials with "interesting and salable properties," he said.

Mr. Supplee reported Atlantic's earnings during the first nine months of 1961 at $31.7 million, up 16 percent from the same period in 1960.

Sales volume was $416.4 million, up from $410.7 million in the comparable 1960 period.

IMPORTS at United States Ports

New York

AMINO ACID—30 dms, Ajinomoto Co, Yokohama
AMINOPYRINE—10 dms, Hamburg
AMMONIUM BICARBONATE—150 dms, Chemical Manufacturing Co, Liverpool
AMMONIUM CARBONATE—50 dms, American British Chemical Supplies, Glasgow
AMMONIUM CHLORIDE—300 bgs, Chemical Manufacturing Co, Liverpool
ANILINE DYES—68 dms, Heemsoth Kerner, Liverpool
2 dms, Geigy Chemical Corp, Liverpool
41 dms, Sandoz Inc, Havre
18 dms, Wedeman & Godknecht, Bremen
6 dms, General Aniline & Film Corp, Bremen
ANNATTO SEED—100 bgs, J I Demick, Rio de Janeiro
ANTIMONY REGULUS—100 cs, Indussa Corp, Antwerp
ARROWROOT FLOUR—1,295 bgs, Poons Co, Itajai
600 bgs, Manhattan Adhesives Corp, Itajai
AZOBENZENE—20 dms, Plant Products Corp, Liverpool
BALSAM—10 cs, Magnus Mabee & Reynard, Barranquilla
BARBASCO ROOT—580 bgs, Astoria Pan Americana, Iquitos
BEESWAX—63 bgs, Koster Keunen, Casablanca
62 bgs, International Commodities Corp, Valparaiso
100 bgs, International Commodities Corp, Itajai
60 bgs, Porto Alegre
BERGAMOT OIL—74 cs, Messina
BOIS DE ROSE OIL—10 dms, Hollander Trading Corp, Iquitos
BONE—220 bgs, Montevideo
BRONZE POWDER—60 dms, Hamburg
10 dms, Bremen
BUCHU LEAVES—27 bls, S B Penick & Co, Cape Town
CALCIUM CARBONATE—600 bgs, Whittaker Clark & Daniels, Liverpool
CALCIUM HYPOCHLORITE—600 dms, Yokohama
CANANGA OIL—3 cs, International Products Corp, Penang
CARAWAY SEED—150 bgs, Hoger Corp, Rotterdam
100 bgs, Frank Tea & Spice Co, Rotterdam
100 bgs, Levy & Levis Co, Rotterdam
150 bgs, M J Golombeck, Rotterdam
200 bgs, Louis Furth, Gdynia
400 bgs, Ideal Trading Co, Rotterdam
CARBON, ACTIVATED—50 dms, London
CARDAMOMS—60 cs, Wm E Martin & Sons, Puerto Barrios
CARISOPRODOL—13 dms, Carter Products Inc, Liverpool
CARNAUBA WAX—100 bgs, Cornelius Wax Refining Corp, Salvador
CASEIN—1,000 bgs, Tupman Thurlow, Buenos Aires
500 bgs, P A Dunkel, Buenos Aires
300 bgs, F C Gerlach, Buenos Aires
600 bgs, J R Spellacy, Melbourne
72 bgs, F H Paul & Stein Bros, Oslo
200 bgs, International Casein Corp, Gdynia
2,000 bgs, Crawford Kish & Co, Gdynia
CASSIA—1,212 bls, Ludwig Mueller, Rotterdam
324 bls, Rotterdam
CASTOR OIL—600 tons, Baker Castor Oil Co, Salvador
250 tons, Salvador
CELERY SEED—261 bgs, East India Trading Co, Bombay
172 bgs, Dodge & Olcott, Bombay
170 bgs, A G Dunn, Bombay
85 bgs, Ideal Trading Co, Bombay
261 bgs, Otto Gerdau, Bombay
CETYL BROMIDE—10 dms, Heemsoth Kerner, Liverpool
CETYL STEARYL ALCOHOL—500 cs, A & S Corp, Yokohama
CHLORINATED RUBBER—100 bgs, Chemical Manufacturing Co, Liverpool
200 bgs, C M C Chemicals Inc, Liverpool
CINNAMON BARK—46 bgs, Rotterdam
CINNAMON QUILLS—50 bls, M J Golombeck, Colombo
99 bls, Curacao Trading Co, Colombo
50 bls, Max Van Pels, Colombo
CITRONELLA OIL—25 dms, Ungerer & Co, Keelung
25 dms, Keelung
CLAY—70 bgs, Moore & Munger, Avonmouth
CLAY, BALL—2,769 bgs, United Clay Mines Corp, Avonmouth
CLAY, CHINA—400 bgs, Moore & Munger, Avonmouth
2,234 bgs, Anglo American Clays Corp, Avonmouth
CLOVE—200 bgs, East India Trading Co, Mombasa
CLOVE OIL—9 dms, Givaudon Corp, Mombasa
23 dms, Fritzsche Bros, Mombasa
COBALT SULFATE—220 dms, Advance International Ltd, London
COCONUT CARBON—10 dms, D H Burdett, London
COCONUT OIL—400 tons, American Trust Co, Zamboanga
425 tons, Maywood Co, Zamboanga
COD OIL—30 tons, Bowring Co, St Johns
CODLIVER OIL—200 dms, Peder Devol Oil Co, Reykjavik
COPAIBA BALSAM—11 dms, George Uhe Co, Manaus
5 dms, Lautier Fils Inc, Manaus
CORIANDER SEED—300 bgs, Casablanca
CORN OIL—200 tons, Corn Products Co, Rotterdam
CORN STARCH—500 bgs, Geismar & Co, Bremen
2,000 bgs, Impex Agricultural Corp, Rijeka
1,120 bgs, Rotterdam
CREAM OF TARTAR—500 bgs, Leonhardt & Brush, London
150 bbls, Barcelona
m-CRESOL—5 dms, Hudson Shipping Co, Hamburg
CUBE ROOT—1,091 bls, Merton Trading Co, Iquitos
CUMIN SEED—357 bgs, Fehr Bros, Istanbul
CUPRIC HYDROXIDE—41 bgs, J S & W R Fakins Inc, London
DEGRAS—22 dms, Chesebrough Ponds Inc, Liverpool
7 dms, Olympic Shipping Co, Liverpool
63 dms, Malmstrom Chemical Corp, Manchester
108 dms, Olympic Shipping Co, Antwerp
50 dms, Gallard Schlesinger, Bremen
DEXTRIN—500 bgs, Stein Hall & Co, Rotterdam
300 bgs, Rotterdam
DIMETHYLUREA—68 dms, Philipp Bros Chemicals, Bremen
DUBOISIA LEAVES—55 bls, A W Fenton & Co, Brisbane
DYES, COALTAR—21 dms, General Aniline & Film Corp, Hamburg
79 dms, Wedeman & Godknecht, Hamburg
155 dms, Orlex Dyes & Chemical Corp, Hamburg
16 dms, General Dyestuff Co, Havre
EARTH COLORS—1,800 bgs, Rotterdam
ETHYLENEDIAMINE, POLYMERIZED — 42 dms, Bremen
FATTY ALCOHOL—220 bgs, Hudson Shipping Co, Yokohama
FIR OIL—17 dms, Kolon Trading Co, Gdynia
FORMIC ACID—49 dms, Rotterdam
GELATIN—300 bgs, King Shipping Co, Hamburg
800 bgs, First National Boston, Hamburg
220 bgs, Antwerp
GERANIUM OIL—3 kgs, A Verley & Co, Cannes
GHATTI GUM—333 bgs, Nehls & O'Connell, Bombay
110 bgs, Morningstar Paisley Inc, Bombay
108 bgs, Colony Import & Export Corp, Bombay
GLUE—100 bgs, Jung Forwarding Co, Liverpool
GLUESTOCK—180 bgs, E J Lang, Manchester
620 bls, H Remis & Co, Puerto Cabello
GLYOXAL—50 dms, Union Carbide Corp, Rotterdam
GRAPHITE—600 bgs, Asbury Graphite Mills, Bremen
500 bgs, Eagle Pencil Co, Bremen
500 bgs, Joseph Dixon Crucible Co, Mombasa
GYPSUM, CRUDE—10,427 tons, U S Gypsum Co, Little Narrows
10,264 tons, U S Gypsum Co, Hantsport
GYSTEINE HYDROCHLORIDE—4 dms, SST Corp, Bremen
HOOF & HORNMEAL—500 bgs, Martin Baer & Co, Rio de Janeiro
IODINE, CRUDE—40 kgs, Mitsubishi Corp, Yokohama
436 cs, Yokohama
IRON BLUE—5 dms, Van Oppen & Co, Liverpool
IRON OXIDE—870 bgs, Reichard Coulston, Malaga
1,000 bgs, American Chemical & Pigments Corp, Malaga
100 bgs, Hudson Shipping Co, Oslo
ISO-OCTANOL—68 tons, Canadian Industries Ltd, Liverpool
JAPAN WAX—15 cs, Mitsubishi Corp, Kobe
KARAYA GUM—180 bgs, Morningstar Paisley Inc, Bombay
70 bgs, Meer Corp, Bombay
126 bgs, Colony Import & Export Corp, Bombay
704 bgs, Stein Hall & Co, Bombay
LACTIC ACID—8 djns, E F Drew & Co, Hamburg
18 cks, F N S Corp, Havre
LAUREL WAX—78 bgs, Buenaventura
LAVANDIN OIL—25 cks, Tombarel Products Co, Cannes
10 cks, Brown Bros, Cannes
4 cks, Cannes
LEMON OIL—381 cs, Messina
LEMONGRASS OIL—18 dms, International Flavors & Fragrances Inc, Cochin
30 dms, Lo Curto & Funk, Puerto Barrios
LIME OIL—2 dms, S S Schoenmann, Port Au Prince
LIVERMEAL—400 bgs, H S C Trading Co, Montevideo
444 bgs, Cap Sales Corp, Buenos Aires
LIVER POWDER, DESICATED—34 dms, Chase Manhattan Bank, Buenos Aires
LOCUST BEAN GUM—500 bgs, T M Duche & Sons, Genoa
100 bgs, P A Dunkel, Genoa
330 bgs, Stein Hall & Co, Genoa
1,751 bgs, J L Quesada, Valencia
200 bgs, Portimao
MACE—70 cs, K H Landes & Co, Singapore
MAGNESIUM CARBONATE—246 cs, Reheis Co, Liverpool
MENTHOL—25 cs, Magnus Mabee & Reynard, Keelung
15 cs, Halford Lewis Ltd, Keelung
50 cs, Lo Curto & Funk, Santos
50 cs, P A Dunkel, Santos
100 cs, Mitsui & Co, Santos
10 cs, Chase Manhattan Bank, Keelung
25 cs, Santos
MERCURIC OXIDE—31 cs, International Selling Corp, Alicante
MERCURY—2,500 flks, Cadiz
METHYLISOPROPYL KETONE—8 dms, Henley & Co, Rotterdam
METHYLNAPHTHALENE—25 dms, G A Abood, Rotterdam
MINERAL LUBRICATING OIL—200 dms, Asiatic Petroleum Corp, Rotterdam
MONOCHLOROACETIC ACID—160 dms, Hamburg
MONOSODIUM GLUTAMATE — 225 dms, Ajinomoto Co, Yokohama
MUSTARD SEED—3,400 bgs, Berns & Kappstein, Copenhagen
600 bgs, R T French, Copenhagen
600 bgs, P J Anderson, London
NAPHTHALENE—346 bgs, J N Forker, Liverpool
268 bgs, Witco Chemical Co, Liverpool
NAPHTHENIC ACID—3,000 bbls, Humble Oil Co, Aruba
NUTMEG—260 bgs, Dodge & Olcott, Rotterdam
NUTMEG OIL—11 cs, Magnus Mabee & Reynard, Penang
OCOTEA CYMBARUM OIL—50 dms, American Metagraph Co, Itajai
OLIVE OIL—25 dms, A Corrao Corp, Genoa
542 dms, Seville
100 dms, Valencia
100 dms, Malaga
OURICURY WAX—50 bgs, M Schmidt, Salvador
OXGALL—6 dms, International Packers Ltd, Montevideo
2 dms, International Packers Ltd, Melbourne
PALMAROSA OIL—1 dm, A Chiris Co, Bombay
PANCREATIN—4 kgs, Copenhagen
PAPAIN—43 cs, S B Penick & Co, Mombasa
44 cs, Meer Corp, Mombasa
20 cs, Prentiss Drug & Chemical Co, Mombasa
70 cs, Chas L Huisking & Co, Mombasa
PAPRIKA—175 bgs, A A Sayia, Alicante
100 bgs, H Marmorek & Son, Alicante
200 bgs, P H Petry, Casablanca
200 bgs, Casablanca
PATCHOULI OIL—2 cs, S S Schoenman, Penang
20 dms, A Chris Co, Penang
1 cs, Cannes
PENTAERYTHRITOL—998 bgs, D Hauser, Kobe
PEPPER, BLACK—50 bgs, V A Cordovi, Singapore
160 bgs, Ludwig Mueller, Cochin
80 bgs, A G Dunn, Cochin
80 bgs, Atlanta Textile Corp, Cochin
160 bgs, Ludwig Mueller, Alleppey
800 bgs, C M Van Sillevoldt, Pandjang
400 bgs, A G Dunn, Pandjang
240 bgs, J Berlage, Pandjang
140 bgs, Ludwig Mueller, Singapore
210 bgs, A G Dunn, Singapore
80 bgs, East India Trading Co, Cochin
800 bgs, M J Golombeck, Alleppey
160 bgs, A G Dunn, Alleppey
320 bgs, Otto Gerdau, Alleppey
140 bgs, Singapore
160 bgs, Alleppey
412 bgs, Cochin
PEPPER, WHITE—70 bgs, Montreal Trading Co, Singapore
PEPPERMINT LEAVES—290 cs, Meer Corp, Hamburg
PETIT GRAIN OIL—6 dms, Buenos Aires
PIMENTO—160 bgs, East India Trading Co, Kingston
POLLACK LIVER OIL—75 dms, Wilbur Ellis Co, Yokohama
POLYVINYL ACETATE EMULSION—25 dms, Lloyd Associates, Bremen
POLYVINYL ALCOHOL—200 bgs, Kobe
POPPYSEED—500 bgs, Louis Furth, Gdynia
150 bgs, J Bieler, Gdynia
250 bgs, R J Spitz, Gdynia
200 bgs, Globe Products Co, Gdynia
300 bgs, Sokol & Co, Gdynia
200 bgs, Levy & Levis Co, Gdynia
250 bgs, Ideal Trading Co, Gdynia
400 bgs, M J Golombeck, Rotterdam
200 bgs, Louis Furth, Rotterdam
100 bgs, Foreign & Domestic Sales Corp, Rotterdam
225 bgs, Levy & Levis Co, Rotterdam
150 bgs, P H Petry, Rotterdam
250 bgs, Hoger Corp, Rotterdam
100 bgs, S Davis Co, Rotterdam
150 bgs, D Rosen, Rotterdam
POPPYSEED OIL—27 dms, Welch Holme & Clark, Antwerp
POTASSIUM GLYCEROPHOSPHATE—7 dms, Hudson Shipping Co, Liverpool
POTASSIUM METABISULFITE—200 dms, Rotterdam
POTATO STARCH—220 bgs, B Westergaard & Co, Copenhagen
PROMETHAZINE—1 cs, Panmed Pharmaceuticals, Genoa
PROPYLENE GLYCOL—334 tons, Jefferson Chemical Co, Liverpool
PSYLLIUM SEED, HUSKS—265 bgs, Foodline Inc, Bombay
PYRETHRUM FLOWERS—50 bls, Prentiss Drug & Chemical Co, Mombasa
QUINIDINE SULFATE—38 dms, Lo Curto & Funk, Hamburg
QUININE SULFATE—7 cs, Frank Samuel & Co, Southampton
QUEBRACHO EXTRACT—12,098 bgs, American Tanners Ltd, Buenos Aires
4,132 bgs, Barkey Importing Co, Buenos Aires
d-RIBONOLACTONE—4 dms, Hoffmann-La Roche Inc, Bremen
4 dms, Hoffmann-La Roche Inc, Hamburg
RICE STARCH—190 bgs, American Key Products, Trieste
300 bgs, Alpha Chemical Products Co, Trieste
350 bgs, Manhattan Adhesives Corp, Trieste
SALICYLIC ACID—141 dms, Wander Co, Hamburg
SANDALWOOD OIL—4 cs, Florasynth Lab, Cochin
SEEDLAC—600 bgs, Wm Zinsser & Co, Calcutta
250 bgs, Ludwig Mueller, Calcutta
SESAME SEED—441 bgs, Hoger Corp, Santos
SHELLAC—200 bgs, Wm Zinsser & Co, Calcutta
200 bgs, Capitol Shellac Corp, Calcutta
SODA, CAUSTIC—180 dms, B T Chemco Inc, Gothenburg
SODIUM ALGINATE—50 dms, Stein Hall & Co, Glasgow
40 dms, Olympic Shipping Co, Bremen
SODIUM CHLORITE—150 dms, Wedeman & Godknecht, Hamburg
SODIUM HYDROSULPHITE—100 dms, Toms River Chemical Corp, Rotterdam
SODIUM PERBORATE—200 bgs, United Merchants & Manufacturing Co, Leghorn
SODIUM PERBORATE TETRAHYDRATE — 1,000 bgs, Chemical Manufacturing Co, Liverpool
SOLVENT-n—100 dms, Chemical Manufacturing Co, Liverpool
SPERM OIL—4,651 tons, Yokohama
SULFATHIAZOLE—50 dms, American Roland Corp, Glynia
SULFUR, CRUDE—7,890 tons, Pan American Sulfur Co, Coatzacoalcos
TAPIOCA—400 bgs, American Key Products, Itajai
330 bgs, Morningstar Paisley Inc, Itajai
TAPIOCA FLOUR—445 bgs, Stein Hall & Co, Itajai
3,019 bgs, Geismar & Co, Kohsichang
5,680 bgs, Morningstar Paisley Inc, Kohsichang
1,691 bgs, Manhattan Adhesives Corp, Itajai
2,205 bgs, Poons Co, Itajai
1,214 bgs, Stein Hall & Co, Kohsichang
TOLBUTAMIDE—6 dms, Byron Chemical Co, Genoa
TRICHLOROETHYLENE — 1,221 tons, Chemcial Manufacturing Co, Liverpool
70 dms, Chemical Manufacturing Co, Liverpool
TUNG OIL—283 tons, Bunge Corp, Buenos Aires
ULTRAMARINE BLUE—99 bgs, Whittaker Clark & Daniels, London
UREA, SYNTHETIC—994 bgs, Chemical Manufacturing Co, Liverpool
VANILLA BEANS—24 cs, Irving Trust Co, Mombasa
VETIVER OIL—3 kgs, A Verley & Co, Cannes
VINYL COPOLYMERS—216 dms, London
WATTLE BARK—1,622 bls, Bowring & Co, Capetown
WATTLE EXTRACT—559 bgs, Barkey Importing Co, Mombasa
401 bgs, Barkey Importing Co, Durban
WAX, SYNTHETIC—3,000 bgs, Moore & Munger, Durban
YLANG YLANG OIL—2 cks, A Verley & Co, Cannes
4 kgs, Cannes
4 cks, Havre
ZINC OXIDE—100 bgs, J Gerber, Rotterdam
ZIRCON SAND—8,055 bgs, Metal & Thermit Corp, Brisbane

Los Angeles

ARROWROOT STARCH—1,000 bgs, Morningstar Paisley Inc, Port of Spain
ASBESTOS FIBER — 2,000 bgs, Johns Manville Corp, Singapore
BONE MEAL—1,103 bgs, Manufacturers Trust Co, Trieste
320 dms, Antwerp
CASSIA—181 bls, Hismoco American Co, Singapore
COPAL GUM—381 bkts, Singapore
COPRA—1,500 tons, Wells Fargo Bank, Tobago
2,900 tons, Wells Fargo Bank, Siain
2,300 tons, Wels Fargo Bank, Davao
DEGRAS—25 dms, Malmstrom Chemical Corp, Manchester
FISHLIVER OIL—2 dms, Mitsubishi Corp, Yokohama
5 dms, Arista Oil Products Corp, Yokohama
GYPSUM, CRUDE—16,686 tons, Kaiser Gypsum Co, San Marcos
IRON OXIDE—200 bgs, F D Davis Co, Manchester
LEAD, WHITE—896 bgs, F D Davis Co, Manchester
LINDANE—50 dms, International Selling Corp, Genoa
NUTMEG—66 bgs, Hismoco American Co, Djakarta
OREGANO—40 bgs, H M Newhall & Co, Salina Cruz
PEPPER, BLACK—200 bgs, California Commodities Corp, Belem
100 bgs, Mincing Trading Corp, Belem
799 bgs, C Czarinkow, Singapore
560 bgs, California Commodities Corp, Djakarta
70 bgs, California Commodities Corp, Singapore
18 bgs, Williamson Balfour Co, Singapore
SESAME SEED—200 bgs, Hismoco American Co, Corinto
TAPIOCA FLOUR—111 bgs, Bangkok

Philadelphia

ANTIMONY OXIDE—1,053 bgs, National Lead Co, Glasgow
BONE MEAL—280 tons, Transatlantic Animal By Products Corp, Buenos Aires
CASEIN—1,000 bgs, National Casein Co, Gdynia
FUEL OIL—103,657 bbls, Mobil Oil Co, El Palito
263,841 bbls, Humble Oil Co, Freeport
115,223 bbls, Sinclair Refining Co, Puerto La Cruz
GLYCERINE—383 tons, Manila
GYPSUM, CRUDE—9,370 tons, U S Gypsum Co, Hantsport
11,167 tons, National Gypsum Co, Halifax
IRON OXIDE—2,000 bgs, Malaga
MAGNESIUM OXIDE—934 bgs, Keer Maurer, Glasgow
MENTHOL—50 cs, Wah Chang Corp, Santos
NAPHTHA—49,879 bbls, Sinclair Refining Co, Puerto La Cruz
NAPHTHALENE—7,950 bgs, Chase Manhattan Bank, Gdynia
SULFUR, CRUDE—1,400 tons, Pan American Sulfur Co, Coatzacoalcos
TALC—1,455 bgs, Whittaker Clark & Daniels, Bordeaux
UREA—1,000 bgs, Nylos Trading Co, Genoa

San Francisco

ANTIMONY REGULUS—300 cs, Indussa Corp, Antwerp
CASEIN—132 bgs, J R Spellacy, Sydney
1,597 bgs, A J Mills & Co, Auckland
CASSIA—500 bls, K H Landes & Co, Saigon
CELLULOSE EXTRACT—400 bgs, H J Boutin, Gothenburg
CHLORAMINE—40 kgs, F P Dow, Gothenburg
COPRA—2,453 tons, Cargill Inc, Tacloban
1,500 tons, Cargill Inc, Dumaguete
1,000 tons, Cargill Inc, Cebu
1,000 tons, Cargill Inc, Iloilo
GUAR GUM—315 bgs, Genoa
MINERAL LUBRICATING OIL—100 dms, Asiatic Petroleum Corp, Rotterdam
MUSTARD SEED—400 bgs, London
OLIVE OIL—25 dms, Cadiz
POLYVINYL ALCOHOL—350 bgs, Kobe
POPPYSEED—50 bgs, W L McClintock, Rotterdam
QUEBRACHO EXTRACT—303 bgs, Barkey Importing Co, Buenos Aires
455 bgs, International Products Corp, Buenos Aires
ROSEMARY LEAVES—112 bgs, H M Newhall & Co, Rotterdam
SAGE LEAVES—41 bls, London
SODIUM CHLORATE—666 bbls, Marseille
THYME LEAVES—50 bgs, Marseille
TRICHLOROETHYLENE—75 dms, Venice

Bids Wanted

Acetylsalicylic Acid Tablets, USP 0.324 gm (5 gr) 1000's, 34,068 btl. Bid IFB-32-285-62B Oct. 31. An additional qt. of 50 percent is being reserved for small business under a partial determination. Military Medical Supply Agency, 3rd Ave. and 29th St., Brooklyn 32, N. Y.

Ceylon: Supply of zinc oxide plaster, etc., Jan. 9. Supply of emetine and bismuth iodide, etc., Jan. 2. The Ministry of Health, P. O. Box No. 500, Colombo, Ceylon.

Chromium Trioxide, Reddish-brown flakes, soluble in water, Assay: CrO_3 99.5% min. Type II, FSN 9YF 6810-264-3939, Spec O-C-303b dtd 16 Nov 59. Deliveries to various destinations, 52,900 lb., 2 items. Bid IFB 160-425-62B Nov. 8. Yards and Docks Supply Office, Port Hueneme, Calif. Attn: Purchase Division.

Detergent, Laundry, multipurpose, 200 lb. drum, Interim Spec Fed P-D-00245, stock No. 7930-664-3341, 1136 drum. **Dishwashing Compound,** machine chlorine base, Klorakal or equal, stock No. 7930-685-4764, 496 drum. Delivery to Lackland AFB, Texas. Bid IFB 41-615-62-57B Nov. 7. Base Procurement Office, Lackland AFB, Tex.

Detergent, Laundry, 392,750 lbs. Bid IFB QM(MGS) 44-193-62-865 Nov. 21. **Detergent, General Purpose,** 124,575 lbs. Bid IFB QM(MGS) 44-193-62-864 Nov. 20. Directorate for Procurement, Military General Supply Agency, Richmond Quartermaster Depot, U. S. Army, Richmond, Va.

Enamel, Spec. MIL-F-10687XB, AM-1, 3,000 cans, various destinations. Bid IFB-63077-997-62B Nov. 16, Military Industrial Supply Agency, 700 Robbins Ave., Philadelphia 11, Pa.

Enamel, Floor, in accord w Fed Spec TT-E-487, 576 on-gal. cans, 109 five-gal. cans. Bid IFB ATE-68469 Nov. 7. **Enamel,** in accord w Fed Spec TT-E-508 and Amend. 4, 104 gal. Bid IFB ATE-68608 Nov. 8. **Paint, Heat Resisting,** Aluminum, 624 cans. Bid IFB ATE-68608 Nov. 8. General Services Administration, Business Service Center, Reg. 4, Business Service Center, 50 Seventh St., N.E., Atlanta 23, Ga.

Ether, USP ¼ lb., 139,392 cans. Bid IFB 32-301-62B, Nov. 3. Military Medical Supply Agency, 3rd Ave. and 29th St., Brooklyn 32, N. Y.

Insect Repellent and Insecticide, for the period 1/1 62 through 12 31 62, indefinite qty, term contract, 12 stock items, 178 line items. Bid IFB FN-4W-26512-A Nov. 1. General Services Administration, Business Service Center, 7th and D Sts., Washington 25, D. C.

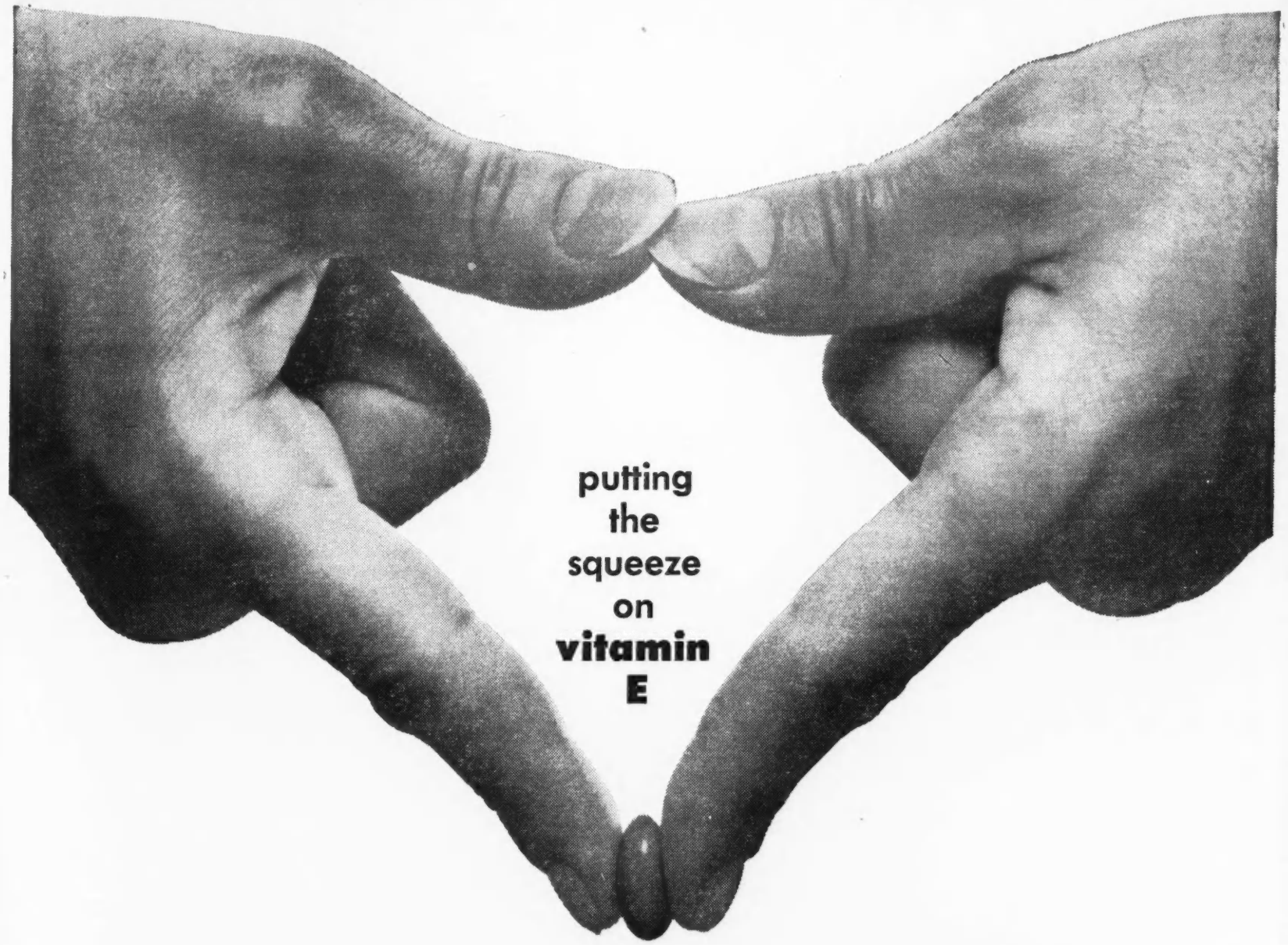
Iraq: Chemicals, soda ash, sulphur, etc., Tender No. 59 61, Nov. 11; sulphur, 700 long tons, Tender No. 35 61, Nov. 11. Director General of Government Oil Refineries Administration, Baghdad, Iraq.

Pyridoxine Hydrochloride Tablets, USP 50 mg (¾ gr) 100's, 7,200 btl. Bid IFB 32-287-62B Nov. 3. An additional qty of 50 percent is being reserved for small business under partial determination, Military Medical Supply Agency, 3rd Ave. and 29th St., Brooklyn 32, N. Y.

Sodium Carbonate, FSN 6810-664-0402, anhydrous, tech., powder or granular, in accord w Fed Spec O-S-571E, Type II, dtd 11 Aug. 60, in bags containing 100 lb. net, 1,020 bags. Bid IFB CML-04-205-62-26 Nov. 1. U. S. Army Chemical Corps Dist., San Francisco, P. O. Box 1977, 1515 Clay St., Oakland 12, Calif.

Sodium Hydroxide, Flake or powder form, Assay: NaOH 96% min., Sodium Carbonate 2% max., FSN 9YF 6810-174-6581, 6810-264-9025, 6810-270-8177, Spec O-S-598 dtd 21 Sept., 60 as modified in inv., various destinations and quantities, 6 items. Bid IFB 160-423-62B Nov. 14. Yards and Docks Supply Office, Port Hueneme, Calif., Attn: Purchase Division.

Tetracycline Hydrochloride, USP 0.1 gm (1½ gr), 26,784 btl. RFP 11015Q. RFP Due Date Nov. 3, Military Medical Supply Agency, 3rd Ave. and 29th St., Brooklyn 32, N. Y.



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Drugs, Fine Chemicals

Markets for several of the more widely-used alkaloids are showing increasing strength. Scopolamine (hyoscine) hydrobromide is said to be selling today at $15 an ounce in 10-ounce lots, up from the previous $13.50, and, according to reports from several trade sources last week, higher prices for pilocarpines are indicated by the shortness of supplies abroad, which will ultimately mean higher replacement costs. Also noted is the somewhat tight stock position on spot for both atropine alkaloid and sulfate.

For most alkaloids demand is the constant factor and it thus has little to do with price fluctuations. One exception, however, is brucine for which requirements have declined somewhat since the introduction of "Bitrex," a synthetic substitute.

"Bitrex," which is manufactured in Scotland, is currently being used in the formula for specialty denatured alcohol #40, but it has not replaced brucine or quassin. Major alcohol manufacturers are offering the various formulae and letting their customers decide which is preferable for their particular needs.

The ready availability of the synthetic material has, however, helped to stabilize prices on brucine, and for alcohol producers, this was the most pressing need.

No saccharin was imported in August, but it is doubtful that Japanese shippers, who are the major exporters of the chemical to the US, are yet disillusioned with the US market. There is, of course, some reason for domestic manufacturers to be.

Domestic production of saccharin is estimated to be running to about one million pounds annually, while total sweeteners demand exceeds 3 million pounds. In the course of two years, it's said, saccharin's share of this market has dwindled from 50 percent to one-third.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Oct. 28, 1960
58.82	58.82	58.88	59.78

For Current Prices See Page 10

Atropine—Trade reports indicate that atropine is somewhat tight on spot. Alkaloid and sulfate are available, however, and because of rather limited inquiry, prices have not fluctuated widely.

Sulfate is believed to be selling at about $4.75 an ounce in 100-ounce lots, and 50c. an ounce higher in 10-ounce lots.

Brucine—There's only limited inquiry for brucine these days because such major uses as manufacturers of specialty-denatured alcohols have taken to importing it direct from abroad.

"Bitrex," a synthetic substitute for brucine, has also cut into sales of the alkaloid. "Bitrex" is manufactured in Scotland and a single firm sells it in this country.

At the present time, alcohol manufacturers are using quassin, brucine and "Bitrex" and leaving it up to their customers to decide which formula they want.

Caffeine—There's been no significant developments in this market since the domestic price was boosted last Spring.

Currently, better inquiry from makers of pharmaceutical preparations is reported. This is compensating from the small drop-off in sales to cola beverage manufacturers whose business no longer fluctuates widely due to seasonal variations in temperatures. Aggressive promotion, it's said, has made soft drinks year-'round favorites.

Imports, however, did drop-off in August—110,375 pounds were brought in that month as opposed to 175,433 in July. Shippers, as usual, were: West Germany, 64,625 pounds, valued at $111,119 and dutied at $32,958; The Netherlands, 34,500 pounds, valued at $82,800 and dutied at $17,595; and United Kingdom, 11,250 pounds, valued at $27,338 and dutied at $5,737.

Camphor—August imports of refined camphor totaled 62,952 pounds and were valued at $28,462 and dutied at $1,889, according to the Commerce department.

Shipping here were Japan and Taiwan, the former accounting for 61,152 pounds, valued at $27,455 and dutied at $1,835.

Imports of synthetic camphor, amounting to 114,200 pounds, were valued at $55,277 and dutied at $5,710. Suppliers were: United Kingdom, 67,200 pounds, valued at $27,608 and dutied at $3,360, and West Germany, the remainder.

Domestically, demand is fairly good but competition from imports, as can be seen from statistics above, is still keen. Presumably, the 3c. increase in US-manufactured synthetic USP camphor powder has held since it was posted on July 1 because importers costs have risen proportionately.

Calcium Pantothenate—Prices were recently cut, but, according to some usually reliable trade sources, trading levels are still below the official quotes in some instances.

For 1,5, and 50-kilo drums, the listing is $20 a kilo. As low as $17 on a sizable order, however, has been noted.

Lysine — Lysine was recently established at $4.50 a pound, 45c. below the previous schedule. The reduction is not unusual in light of the fact that the trend has been steadily downward since 1958.

At the lower price, producers hope to encourage usage by food processors, who currently put lysine in specialty breads, cereals and other products where the amino acid adds to nutritional value. Some lysine is also used in pharmaceutical preparations, but this is the smaller of the two markets.

Pilocarpine—Although prices have not fluctuated widely since the beginning of the year, an advance may be coming. Recent reports indicate that the material is short abroad — meaning higher replacement costs can be expected.

Pilocarpine hydrochloride is selling at $4.75 to $5.25 an ounce, the nitrate, about 10c. an ounce cheaper.

Saccharin—According to Commerce department reports, there was no saccharin imported here in August. July volume was 18,714 pounds.

Imported material, selling slightly under the domestic prices, has exerted continual pressure on the market. A bigger factor, perhaps, has been the rise in popularity of other non-caloric sweeteners, namely calcium and sodium cyclamates.

It is estimated, for example, that saccharin output is running to about one million pounds annually, while the total sweetener market exceeds 3 million pounds. A few years ago, saccharin's share was nearer 50 percent, and it's doubtful that it will ever regain its former position.

Scopolamine — Scopolamine hydrobromide (hyoscine hydrobromide, as it's also known) is selling at $15 an ounce in 10-ounce lots, up from the previous $13.50. The methybromide is listed, unchanged, at $17.60 an ounce for a similar quantity.

Sources report the material to be in short supply.

Strychnine—August imports were 5,500 ounces, valued at $4,770 and dutied at $550. According to Commerce department statistics, the suppliers were India (3,500 pounds, valued at $2,603 and dutied at $350) and France.

All strychnine used in the US is imported. Availability, and consequently prices, are determined by the situation abroad. This naturally means that there are fluctuations from time to time although demand remains fairly constant.

Botanicals

Agar—With more stock available, prices are lower. Current listing on USP Kobe No. 1 strip is $2.60 a pound, down from a high of $3 a pound a short time ago. The powder is priced, unchanged, at $2.40 a pound. Good inquiry is noted.

Cantharides—Today's prices: Chinese, $1.50 a pound; Russian, $2.25 a pound. In both cases, prices on the powder are 25c. a pound higher.

There is a very little domestic inquiry for cantharides. Thus prices, which are currently 25c. to 50c. higher than those

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Drugs, Fine Chemicals

quoted at the beginning of the year, mainly reflect the stock position and importers' replacement costs.

Gum Arabic—Amber sorts are quoted unchanged, at 21c. to 23c. a pound, the powder at 27c. to 30c. a pound.

New crop arabic is expected to be offered soon for end-of-the-year shipment. Spot stocks, in face of only fair inquiry, are adequate now.

Ipecac—Ipecac root is selling today at $7.75 to $8 a pound, the powder at $9 a pound. Requirements are reported to be quite large.

Quassia Chips—Routine demand, adequate stocks are noted by trade sources. Price is 10c. a pound and has persisted throughout the year.

Drug, Fine Chemical Briefs

ANTIFUNGAL AGENT: "Suspension Grifulvin," the first liquid form of the orally effective fungistatic agent specific for ringworm infections of the hair, skin and nails is now available from McNeil Laboratories, Inc., Fort Washington, Pa. Price to the retailer: $3.25 per 4-ounce bottle.

IMMUNIZATION URGED: Public Health Service urges that available supplies of influenza vaccine be used to immunize persons in the high risk groups before the onset of winter. Between September 1957 and March 1960, most of the 86,000 influenza-related deaths were among (1) persons who suffered from chronic diseases of the heart, lungs and circulatory systems; (2) pregnant women, and (3) persons over 65 years old.

PHARMACY AWARDS: Under its 1962 Lunsford Richardson Pharmacy Awards program, Richardson-Merrell, Inc., New York, will distribute more than $10,000 to winning students, their colleges of pharmacy and American Pharmaceutical Association student branches. Undergraduate awards are given to the best manuscripts on an assigned topic; graduate awards for papers based on original research in the pharmaceutical sciences.

REILLY MAKES ISONIAZID — Reilly Tar & Chemical Corp., Indianapolis, Ind., reports that it is still making isoniazid, the drug which has been found effective in preventing tuberculosis. It was previously indicated that the firm had halted production after a brief stay in the market (OPD, 10/2/61).

Pfizer Hauls UK Ministry Into Court Over Drug Deals

Pfizer, Ltd., subsidiary in Britain of Chas. Pfizer & Co., will bring court action to test the legality of the British Ministry of Health purchases of cheap drugs from unlicensed foreign producers and importers.

Pfizer is one of four American-owned firms most directly affected by the ministry decision to buy tetracycline, chlortetracycline, oxytetracycline chloramphenicol and cholorthiazide from unlicensed makers in Denmark and Italy.

Pfizer contends the purchases, made under a section of the patents law previously used only for defense purposes, attacks basic company rights.

'Celcon' Maker Claims

—*Continued from page 4*

an acetyl copolymer, infringes on its patent on "Delrin," the acetyl resin. Celanese claims "Celcon" is unique and not covered by the duPont patent.

With rapid development of acetyl resin markets, Celanese expects to double capacity at Bishop, Tex., every three to five years, it was disclosed at the laboratory dedication. Automotive and plumbing uses are expected to be prominent.

Dr. Robert T. Armstrong, vice-president and technical director of Celanese Corporation of America, noted at the dedication that production of plastics raw materials in the western world has risen nearly 400 percent since 1950.

"I see no reason," he said, "to dispute forecasts that plastics—now the largest outlet for simple organic chemicals—will experience another three- or four-fold rise in output in the decade ahead."

Kellogg Wins ICI Contract For Petrochemicals Plant

Kellogg International of M. W. Kellogg Company has won a contract from Imperial Chemical Industries, Ltd., to design, build and procure equipment for a refinery to process a million tons of crude oil yearly into petrochemical raw materials.

ICI announced plans for the refinery last spring. The crude oil will be supplied by Shell-Mex (a UK firm owned jointly by Shell Oil Company, Ltd., and British Petroleum Company, Ltd.) and British Petroleum which now supplies the petrochemical starting materials direct.

The petrochemicals will go to ICI's Wilton works for production of plastics and fibres.

Chemical Stake

—*Continued from page 4*

portance of these investments on the American economy as a whole, however, saying that the contribution of these investments has been mainly to widen the spectrum of products available. Foreign-controlled enterprises have little weight in the aggregate, it is stated, in any major branch of US manufacturing.

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- XANTHENE (DIBENZOPYRANE)
- XANTHENE-9-CARBOXYLIC ACID
- p-XENYLAMINE
- p-XENYL ISOCYANATE
- YTTERBIUM OXIDE
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Chemicals • Biological Stains

Essential Oils, Aromatics

The recent advance in lemongrass places this oil at a ten-year high, according to price records of some essential oil dealers here in New York. It advanced 50 cents per pound at a time when a price decline was hoped for. Stocks on spot are very short. This situation came about as a result of heavy rains several weeks ago right at the time distilling operations were getting under way. Distillation was delayed a considerable length of time. Demand in the meantime was growing, so the price went up. Dealers had allowed their stocks to run low in anticipation of the new crop material, so even though offerings were small and high-priced, dealers were forced to buy. Heavy demand in the face of high price encouraged sellers in India to push their luck and see how much buyers were willing to pay.

The one note of encouragement is that the lemongrass crop itself is estimated to be a large one. And as soon as the present supply-and-demand fiasco is straightened out there should be ample stocks to satisfy demand. When the situation will return to normal, however, is unknown.

According to the Food and Agriculture Organization of the United Nations, the trade in spices constitutes less than 0.1 percent of total world trade. In some cases, however, it plays a dominating role in the exports of particular countries. Spices are of dominant importance in a few colonial island economies, but otherwise constitute a relatively minor item in the trade and economic life of a fairly large and widely distributed number of territories.

The advanced industrial areas of North America and Western Europe still constitute over half of the total import market for all the major spices taken together, but the share of these countries has nonetheless been falling since before the war in favor of that of the Arab countries and South America. The decline shown in the share of the Soviet Union and Eastern Europe, where imports are purchased by the government, and of India, where they are subject to import controls, probably reflects priorities in government planning rather than a change in consumer tastes.

A drug house is offering a new antiseptic mouth lozenge to combat halitosis which owes its pleasant taste to thymol, eucalyptol, methyl salicylate and menthol. The lozenge also contains cetylpyridium chloride and sodium propionate for antibacterial properties, and benzocaine to relieve throat irritations.

Price Trends

Advanced

Citronella, Formosan, 10c. per lb.
Lemongrass, 50c. per lb.

Reduced

Dilweed, 50c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	Oct. 28, 1960
142.95	142.95	142.97	145.56

For Current Prices See Page 10

Essential Oils

Citronella—Formosan material continues quite firm. Spot price has risen from $1.05 per pound to $1.15 per pound. Ceylon material continues at $1.05 per pound.

Dillweed — Domestic material has dropped considerably in price. From its previous price, $4.50 per pound, it has been reduced to an even $4 per pound.

Probably the weakening is due to the arrival of new crop material on spot; harvest and distillation in the US take place in the fall.

Most of what is produced in this country goes to the pickle-canning industry which is the largest volume canned food in America.

The entire dill plant is distilled in this country to get the oil. Only the seed of the plant is distilled in such places as England and Hungary. And in some places—the Middle East, Southern Russia, India—the dill plant is grown almost exclusively for its use as a dry botanical.

Dill is grown primarily in Ohio, Idaho and Oregon. It is cut when the most advanced seed is turning brown. The cut material is allowed to dry for a short time in the fields and then it is taken to the distillery. (If it is allowed to dry for too long a period of time, the oil distilled from it would be abnormally high in carvone which is undesirable in dillweed oil.)

Lemongrass—The market soared last week at a time when some observers were looking for a decline. For over a month material has been scarce and high-priced and just at the time when there was some feeling it might at least level off, it skyrocketed.

From the previously-listed price, $3 per pound, the spot price jumped to $3.50 per pound with dealers reporting their supplies are very light.

Material became scarce in September because heavy rains in the growing and producing regions delayed distillation. Dealers had held off buying in anticipation of the new crop and, even though new crop material was expensive, they were forced to buy.

Such strong demand for the material probably encouraged the Indians to see just what their customers were willing to pay.

The current $3.50 per pound price is the highest the oil has gone during the past 10 years, according to some dealers.

The lowest spot prices recorded for lemongrass during these past 10 years was 75c. per pound in 1952. As recently as 1959, however, the price was at the 90c. per pound level.

Sandalwood—The spot price range continues at $27 to $30 per pound, but the overall market is said to be easier.

Aromatic Chemicals

Citral — The market continues firm.

Methyl Cinnamate—The market is firm according to some reports. Material is available for prices ranging between $2.05 and $2.20 per pound.

This material, which is found in oils of jonquil, basil and galanga, is used to lend a spicy or oriental note to fragrances and a berry characteristic to flavors.

Methyl Ionone — Dealers report the market is firm.

Seeds and Spices

Basil — French material has dropped from its previous price, 83c. per pound, to 75c. per pound.

Cardamom—Alleppey decorticated ma-

World Trade in Pepper: Exports

	Average 1937-39	1950	1955	1956	1957	1958
Indonesia	51.70	7.11	13.48	18.90	17.43	12.45
India[1]	1.17	13.72	12.55	12.40	15.50	19.61
Sarawak	2.74	0.31	16.56	20.12	13.97	9.91
Cambodia[2]	4.68	1.02	0.71	0.81	1.02	0.61
Ceylon	.....	0.20	0.25	0.30	0.25	0.71
Madagascar	0.15	0.25	0.76	0.56	0.51	0.71
Brazil	.....	.....	.....	0.10	0.56	0.61
Malaya and Singapore[3]	11.33	3.92	22.25	32.00	31.03	30.38
Hong Kong[4]	2.54	.....	0.30	0.25	0.15	0.15
United States[4]	1.78	0.30	0.05	0.05	0.10	.....
United Kingdom[4]	1.58	0.86	0.71	0.41	0.46	0.15
Total of above	77.67	27.69	67.62	85.90	80.98	75.29
Net exports[5]	60.06	22.87	44.10	52.83	48.98	44.35

Source: Food and Agriculture Organization. United Nations Figures in thousands of metric tons.

[1] Prewar: Undivided India.
[2] Prior to 1953: Indo-China.
[3] Exports and re-export.
[4] Re-exports.
[5] Estimated: exports less re-exports.

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Essential Oils

terial has advanced in price. From its previous level, $2.50 per pound, it has risen to $2.60 per pound.

Chillies—Turkish material is said to be weak for shipment.

Mace — Siauw No. 2 prime material dropped from $1.17 per pound, to $1.15 per pound.

Pepper — Both Malabar and Lampong black dropped considerably. They both were reduced from 44c. per pound to 41c. per pound. Muntok white was reduced from 56c. per pound to 55c. per pound.

Brazilian black and white, which are coming in season, are listed at 40c. and 53c. per pound, respectively.

The sharp rise in production up to 1956 was largely a result of the stimulus of very high pepper prices in 1949-51, according to the Food and Agriculture Organization of the United Nations in their committee report on trends in the world market for spices.

The subsequent fall in prices was reflected in decreased output with a lag of 4 to 5 years. Some governments are now trying to encourage a further expansion of output. The Indian government's target for 1961 under the current five-year plan is 35,000 to 36,000 tons. The Sarawak government also is taking steps to assist production.

However, the effect of substantial increases in production in these countries on price, will depend partly on what happens to output in Indonesia—about which very little is known. The effect of these increases in production on price also will depend on the extent to which the increase is consumed domestically.

Benelux Nations Lead Europe In US Chemicals Investment

Chase Manhattan Bank reports that the Benelux nations—Belgium, Netherlands and Luxembourg—lead the rest of Europe in chemical investments.

Since 1958, fifty-five US-backed chemical projects have been started up in the Benelux countries. Italy is in second place with twenty-eight. The others: Germany, seventeen; Britain, fifteen; Switzerland, ten, and France, eight.

Chemical Stocks

—Continued from page 7

of this year, OBE said, amounted to $750.2 million, compared with $738.8 million in the same nine months of 1960. During September, cash dividend payments rose to $180.4 million, an increase of $2.6 million over September last year.

Oil refiners reported a big boost in their dividends in September to $360.1 million from last year's figure of $342 million. The increase moved the total for the first three quarters up to $1,081.2 million, compared with $1,060 million a year ago.

With only four of the manufacturing groups running behind last year's totals, cash dividend payments by all corporations were up $200 million or 2 percent over the same period last year. The nine months total this year reached $10,014.2 million against $9,809.7 million last year.

The September total of all corporations was $2,008.8 million, an increase of 2 percent over the September, 1960 total of $1,965.5 million.

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Molecular Sieves Making Possible One-Can Epoxy Coatings, Adhesives

Stable one-can epoxy coatings and adhesives that cure at room temperature. Gaseous defolients, pesticides and ripening agents which can be applied in convenient powder form, release their active ingredient over a period of time, and finally be easily removed by water. Volatile cleaning and germicidal agents which can be held in check until needed, and then released by contact with water. These and many other useful products may be marketed in the next few years as a result of intensified use of a relatively new technique involving chemical loading of molecular sieves.

The one-can epoxies are a technical reality right now. Linde Company Division of Union Carbide Corporation, New York, has just announced development of a new method which allows the epoxy catalyst or hardener to be pre-mixed with the resin and yet remain completely isolated from it until needed.

In this way, it's hoped that many epoxy resin formulators will be able to convert their two-can epoxy systems into one-can systems that exhibit good shelf life, lower exotherms during cure and cure rates approaching that of the free chemical.

Linde Working With Epoxy Makers

The company is currently working with several epoxy adhesive and coatings makers in hopes of developing commercial formulations based on utilization of several types of latent hardeners and catalysts. Epoxy molding powders, based on the principle, are already commercially available, sources report.

The use of molecular sieves as carriers for a wide variety of chemical compounds is a relatively new development in the chemical industry.

In this type of application, chemical compounds are held within the crystal lattice of the molecular sieve until needed, at which time they can be released by heating the carrier or by displacement of the chemical with another adsorbable material such as water.

Chemically-loaded sieves may be used to control the activity of catalysts, or the volatility, toxicity or odor that would limit applications for otherwise useful chemical compounds.

For one-can epoxies, Linde reports three basic types of chemially loaded molecular sieve products are currently available. These are: simple polyamine-loaded hardeners, modified polyamine hardeners and tertiary amine catalysts.

A simple polyamine-loaded "Linde Molecular Sieve" is said to provide a one-year shelf life and cure at room temperature if a displacing agent such as water is present during cure. It's felt this type of product would be applicable in thin-coating or adhesive use where atmospheric and substrate moisture is present.

Heat Cure Possible

Cure time can be shortened by heating providing the displacing agent is not removed. If the coating, adhesive or casting can be heated to 250-350 degrees F., a modified polyamine-loaded hardener can be used. A special modification is required if the polyamine is to be released from the molecular sieve by heat alone, the company reports.

A third type of product made available for epoxies contains tertiary amine catalysts. Tertiary amines, like triethylamine, can generally be released by heat or displacement, or both, as desired.

When these catalysts are loaded on molecular sieves, the shelf life of the resin system will be defined by the individual resin and hardener combination being used, the company says.

Linde points out that previous approaches to improving the shelf life of ar ve epoxy hardeners were based on increasing their molecular weight to decrease vapor pressure, or complexing them with other molecules in such a way that the complex would decompose to release the active hardener at an acceptable temperature.

Both of these methods are said to be limited because the better the shelf life obtained by inactivating the hardener, the more difficult it is to produce an adequate cure in an acceptable period of time and at a reasonable cure temperature. Also, these complexed catalysts will not produce a room temperature cure.

Polyamine-loaded molecular sieves promote a lower temperature during cure, which is important in applications where epoxy resins are used to encapsulate delicate, temperature-sensitive electronic parts, or—since the exotherm is greater in large masses—where the resins are used to cast large components. Temperatures of 400-500 degrees F. are said to have been reached in one-pound batches of epoxy resin durihg cure with a straight polyamine hardener.

High Cost Offset By Advantages

Although the cost of using chemically-loaded molecular sieves as latent sources of hardening agents is greater than that of the equivalent two-can systems being replaced, Linde anticipates that the convenience of the new systems, the extremely long shelf life, and lower cure exotherms will offset the added cost in many applications. Prices of "Linde Molecular Sieves," adsorbent and powder materials, range from $1.25 to $1.95 per pound.

Current commercial applications for chemically-loaded molecular sieves include their use as "cages" for some of the catalysts and accelerators used in rubber processing.

In silicone rubber, di-tert-butyl peroxide may be used to cure silicone rubber containing vinyl groups. The peroxide will react with the vinyl group, but not with the methyl groups of the silicone.

Although this catalyst is said to give better control over cure and more stable compounds, it voltalizes to flammable vapors. In processing on rubber milling equipment a fire hazard results. This problem has been overcome by loading the catalyst on molecular sieves.

Dispersion of Accelerator a Problem

Diethylthiourea, a fast-acting accelerator for vulcanizing neoprene for such products as tubing, is difficult to disperse if added in pure form and may result in faulty extrusions. The compound may be loaded on a molecular sieve to greatly improve dispersion.

Newer developments in this area include use of accelerator-loaded sieves for application in the direct vulcanization or "molded-on-sole" process in wide use in the shoe industry, and in the curing of polyacrylate rubber in automobile transmission seals.

In the latter application the scorch and handling problems associated with use of triethylene diamine are controlled through application of molecular sieves.

On the research and development level, cleaning agents such as ammonia and hydrogen chloride have been adsorbed

—*Continued on page 60*

Simoniz Now Marketing A Detergent-Proof Wax

Simoniz Company has completed plans for test marketing of a new detergent-proof floor wax called "Master Wax." According to J. M. Tyson, vice-president of sales, the product went onto grocery shelves in mid-October in Providence, R. I., the Cincinnati-Dayton, Ohio, area and San Diego, Calif.

Based on "Lock and Key" polymer (OPD, 7/17/61), the wax locks on floors and can be washed repeatedly with soaps and detergents without losing its shine. Simoniz has also developed "Permacrylic Remover" to strip off the new wax.

Suggested retail price for "Master Wax" is 89 cents in the fourteen-ounce size and $1.59 for twenty-six ounces. The remover is available in a five-ounce package with a suggested retail price of 39 cents a pound.

Petroleum Derivatives

The only price activity on the market this past week was a one-half cent per gallon localized drop in the price of toluene. This minor fluctuation is limited to an area ranging from Long Island to Baltimore, and has not yet affected the overall price pattern. Most observers agree that it represents a skirmish for business on the part of certain producers, rather than an uncomfortable over-supply situation. It is not expected to spread beyond its present confines, nor is it deemed likely to have any drastic effect on the overall market. Prices of other aromatics in the area involved were in no way altered.

Producers of aliphatic solvents and intermediates are optimistic as to the immediate future. Prices are stable, and all fractions and cuts of these solvents are readily available. Hexane, used in the production of polyolefins, is enjoying a particularly good season.

The demand for waxes, both microcrystallines and paraffins, is well-sustained, and the normally stable prices remain as they were. No one is seriously worried over the possible encroachment, in certain end-uses, by synthetics and plastics.

Xylene demand for separation into its isomers remains modest, with o-xylene needs lower than they had been.

o-Xylene, which is an alternative to naphthalene for use in the production of phthalic anhydride, may, however, be due for a boost with at least one new plant and several expanded facilities slated to go on stream in early '62. Although technological research has been working to improve the efficiency of ortho for phthalic anhydride manufacture in this country, the main outlet for this chemical is still as an export to such countries as Japan.

The latter depends almost wholly upon it for PA production, as opposed to US plants which are for the most part geared to the use of naphthalene.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Oct. 28, 1960
104.13	104.13	104.13	103.74

For Current Prices See Page 10

Aromatic Solvents

Benzene—The current benzene situation is one of steadily increasing availability. This is in marked contrast to the supply situation which prevailed in 1959-60, when this low boiling solvent and intermediate was getting a little tight in the domestic market.

At that time, as well as in the two preceding years, producers tended to lean somewhat on the international supply of benzene. A considerable volume of this all-important aromatic was imported, including substantial amounts from the Soviet Union and Poland, at less-than-US domestic prices.

Partially in an effort to counteract this tightness in domestic supply, and partially to capitalize on the expanding benzene market, many large manufacturers have been jumping into the field. New plants have been going up at a prodigious rate all over the country and on stream capacity should reach a record high in 1961.

Of course, the advent of petroleum-derived benzene in the early '50's played its part in the huge expansion of the industry.

Although in certain quarters there is some trepidation over the present more-than-abundant supplies, other sources are confident that the opening of new markets and the expansion of existing ones will take up whatever slack there is. In neither case is anything amounting to a significant price break looked for in the near future. Prices remain firm. No pressure is being felt in any of the areas concerned.

Toluene—In localized areas on the East Coast, toluene underwent a ½-cent price drop last week. The situation reportedly began in Newark, N. J., and quickly spread to cover an area comprising Long Island, metropolitan New York, all of New Jersey, metropolitan Philadelphia and metropolitan Baltimore. The 25-cent per gallon delivered price is definitely localized, and is not expected to spread beyond this confined area. It does not indicate any overall price change, nor is the market in any way threatened.

Xylene—Prices remain quite firm. The slight fluctuation in toluene has had no discernible effect on xylene price patterns. Shipments are moving promptly, and no concern is being voiced by any of the producers.

Crude Oil Stocks Climb

Domestic and foreign crude petroleum stocks at the close of the week ended October 14 were 2,000,000 bbls. higher than at the end of the preceding week.

Week ended October 14—251,957,000 bbls.

Preceding week—249,957,000 bbls.

This comprises a decrease of 12,000 bbls in stocks of domestic crude, and an increase of 2,012,000 bbls. of foreign crude.

(Source: Bureau of Mines)

LPG's and LRG's

American Petroleum Institute reported production for the period of September 16-30 of light pressed gases as 374,109,000 gallons, and of light refinery gases as 140,536,000 gallons.

These figures for LPG's compare favorably with the revised figures for the first two weeks of the month, indicating an increase of 33,296,000 gallons. They also show a decided 31,913,000 gallon increase over the total output for the corresponding period of last year. The LRG production for the September 16-30 period was 19,898,000 gallons higher than the output for the first half of the month, although it was only 8,680,000 gallons higher than for the corresponding period in 1960.

As of September 30, stocks of LPG's were reported as 1,574,788,000 gallons, an advance of some 54,892,000 gallons over the revised figures for the middle of the month. At the same time they showed a considerable increase of 405,572,000 gallons over stocks at the end of September last year. Light refinery gas stocks totaled 262,182,000 gallons on September 30. This marks a small 5,127,000 gallon increase over the revised figures for the first half of September, but it also shows a huge amplification of 117,258,000 gallons over LRG stocks at the same time last year.

Butane—Production of LPG butane for September 16-30 was announced as 85,180,000 gallons, compared with 80,820,000 gallons for the previous two weeks, and 75,274,000 gallons for the corresponding period of 1960. At the same time refinery production amounted to 18,942,000 gallons of butane, only slightly above the 18,389,000 figure for the September 1-16 period, and somewhat lower than the 21,331,000 gallons produced in the second half of September last year.

Isobutane—The output of isobutane, set at 28,342,000 gallons for the latter half of September by the API, dropped off sharply from the 32,700,000 gallon figure for the first half of September. It was, however, more than the 26,920,000 gallons produced in the comparable period last year.

Stocks of isobutane at plants, terminals and underground were fixed as 82,747,000 gallons at the end of September, approximately the same as at the middle of the month, but showing a more than 100 percent increase in volume over the 29,310,000 gallons in stock at the end of September last year.

Miscellaneous

November Crude Outlook—The amount of domestic crude oil that will be consumed or exported in November, 1961 is estimated by the Bureau of Mines, United States Department of the Interior, at 7,050,000 barrels daily, compared with 6,900,000 barrels forecast for October.

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Coating Materials

The 2½ cents per pound price drop in phthalic anhydride effected last week, had led to another drop in the price structure of phthalate ester plasticizers. In most cases, the phthalate esters were reduced 1 cent per pound, although price changes, depending upon the ester, ranged from ¾ cent to 1½ cents per pound. Since phthalic anhydride and isophthalic acid both dropped 2½ cents per pound, and this on top of a 2 cent drop the past August, the feeling is quite generally held that these reductions will be reflected in the price structure of both alkyd resins and those polyester resins based on phthalic and isophthalic.

Paint industry demand for zinc pigments took a healthy upturn in October due to heavier painting schedules due to good weather. Rubber demand for zinc oxide remains sluggish, but is beginning to turn upward. The outlook in November for zinc pigments is for a somewhat lessened demand from the paint industry, which will be more than offset by substantial gains in the volume going into rubber, since by then the automotive industry will be going full blast.

Titanium dioxide demand continues strong from the paper industry, and took an October spurt from the paint industry, making business for the month somewhere between 5 and 10 percent ahead of September.

Trading in shellac is reported as quiet and prices on all grades remain firm and unchanged. The argument about the establishment of floor prices in India has been settled after many months, and their establishment seems to do nothing more than maintain the status quo.

Price Trends

Advanced

None

Reduced

Butyl cyclohexyl phthalate, 1c. per lb.
Butyl isodecyl phthalate, 1c. per lb.
Butyl octyl phthalate, 1c. per lb.
Dibutyl phthalate, 1¼c. per lb.
Dicyclohexyl phthalate, 1c. per lb.
Didecyl phthalate, 1c. per lb.
Diethyl phthalate, 1½c. per lb.
Di-isobutyl phthalate, 1c. per lb.
Di-isodecyl phthalate, 1c. per lb.
Di-iso-octyl phthalate, 1c. per lb.
Dimethyl phthalate, 1½c. per lb.
Dioctyl phthalate, 1c. per lb.
Ditridecyl phthalate, ¾c. per lb.
Iso-octyl isodecyl phthalate, 1c. per lb.
n-Octyl-n-decyl phthalate, 1c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	Oct. 28, 1960
103.11	104.69	104.69	103.14

For Current Prices See Page 10

Prime Pigments

Carbon Black—According to the Bureau of Mines, August carbon black production was 3.7 percent below August of 1960. Shipments of carbon black in August increased 0.8 percent over August a year ago. Stocks at the end of August were off some 3,000,000 pounds from July 31.

Production of carbon black in August consisted of 143,616,000 pounds of furnace and 21,424,000 pounds of channel, for a total of 165,040,000 pounds. Total output figures for August of last year were 147,467,000 pounds of furnace and 23,994,000 pounds of channel, for a total of 171,461,000 pounds. This brought carbon black production for the first eight months of this year to 1,299,568,000 pounds, as compared with 1,422,270,000 pounds for the corresponding period of last year.

Carbon black shipments in August amounted to 168,513,000 pounds, as compared with 159,698,000 pounds in July and 167,102,000 pounds in August of last year.

Phthalocyanine Pigments—The price adjustments in blue and green phthalocyanine colors which will become effective in late November can be summarized as follows:

Note: Blue phthalocyanine colors for polyolefin plastics will advance 2 cents per pound, and green colors for polyolefin plastics will advance 4 cents per pound across the board.

	Old Price	New Price
Blue Toner, crystallizing type	$2.90	$3.00
Easy dispersing, crystallizing type	2.90	3.00
Crystal stable type	3.25	no change
Crystal stable, flocculation resistant	3.25	no change
Green shaded blue	3.20	3.50
Blue resinated toner, crystallizing type	2.75	no change
Crystal stable, resinated	3.00	no change
Blue reduced color, easy dispersing type	2.50	no change
High Strength type	2.75	no change
Lake	.90	no change
Blue press cake (dry basis) crystallizing	2.25	2.40
Crystal stable type	2.50	no change
Blue Aqueous Dispersions	.66	.68
Special Super Aqueous dispersion	.94	1.03
Blue Water Dispersible type	1.52	no change
Green Toners	3.35	3.50
Green resinated toners	3.00	3.10
Green Aqueous Dispersions	.76	.78
Special Super Aqueous Dispersion	1.14	1.19
Green Water Dispersible	1.69	no change

Titanium Dioxide—Business volume in October is running around 5 to 10 percent ahead of September, producers report. Part of the better volume, which is an increase from very good business to start with, is due to the Fall spurt in painting which came with better weather conditions. Paper demand is well sustained. Prices are firm and expected to hold for the balance of the year.

Toluidine Red Toners—Demand for use in automotive finishes is running somewhat behind what it was at this time last year, but as the auto strikes get settled, business is felt likely to spurt. Prices remained unchanged, and are felt likely to hold for the balance of the year.

Zinc Pigments—American process zinc oxides and leaded zinc oxides are finding October business volume considerably improved over September because of the increase painting that has come with better outside weather conditions. However, zinc oxide used by the rubber industry is moving relatively slow. This is attributable in large part to the fact that automotive strikes in late September and early October held up new car production.

Most of the automotive labor disputes are now settled, and the rubber industry can get back into full swing on tire production. Things are looking very bright in the rubber industry for November. Overall, the pick up in rubber industry zinc oxide demand will much more than offset November's expected decline in paint industry zinc pigment demand.

Zinc Dust—Metallic zinc dust pigments used in automotive primers are finding a good outlet in primers used in priming welded unibody type auto frames. High zinc content primers can be welded through conduct electricity, and afford good protection to the welded joint. One maker has doubled capacity on zinc dust production.

Plasticizers

Among the leading phthalate ester plasticizers which were reduced in price last week as a result of a 2½c. per pound cut in phthalic anhydride were the following, on which the new tankcar or tanktruck price is shown:

	t.c. or t.t. Price
Butyl cyclohexyl phthalate	$.22½
Butyl isodecyl phthalate	.22
Butyl octyl phthalate	.22
Dibutyl phthalate	.26¾
Dicyclohexyl phthalate (c.l. gran.)	.47½
Didecyl phthalate	.23
Diethyl phthalate	.24¼
Di-isobutyl phthalate	.25½
Di-isodecyl phthalate	.23
Di-iso-octyl phthalate	.22½
Dimethyl phthalate	.24¼
Dioctyl phthalate	.22½
Ditridecyl phthalate	.26¾
Iso-octyl isodecyl phthalate	.23
n-Octyl-n-decyl phthalate	.27

As of press time, non-phthalate plasticizers were under consideration of price adjustment.

Synthetic Resins

The drop last week of 2½c. per pound in phthalic anhydride, following a drop in August of 2c., totals an amount sufficient to significantly affect the cost position of alkyd resins and of polyesters which are phthalic-based, Isophthalic acid, also used in alkyd resins and polyesters, has undergone similar price changes.

Just what price adjustments may result in resins is less clear, because products in actual use vary widely as to phthalic content. However, that there will be some minor adjustments made in resin prices is a feeling expressed in most quarters. The alkyd market is particularly

Coating Materials

sensitive due to abundant supplies and keen competition.

While profit margins in alkyd resins are ridiculously narrow, and a slight break in raw material costs for manufacturers should be used by them to help offset accumulated manufacturing costs which they have been too long absorbing, the hope of this is fairly remote. Some manufacturer will pass on the raw material savings to customers, and then everyone will have to go along with it, and only the alkyd industry itself will lose. This has been the classic pattern, and will probably repeat itself.

Miscellaneous

Casein — Prices are unchanged from those which prevailed the previous week, but the market appeared to have a more firm undertone. Drought and other conditions have adversely affected the Argentine casein output, and offerings remain light. Trading is largely confined to small spot quantities, with large volume buyers adopting a "wait and see" attitude with respect to prime market factors.

Shellac—All phases and factors in the shellac market are just about as they had been. Demand is well sustained at moderate volume. Supplies are quite ample to meet all calls, and plenty is available from India. The matter of floor prices appears to be settled in India at about status quo, ever was, and when or if prices will be affected here is simply a conjecture. Meanwhile, everyone is buying all they want for prompt shipment all along the line.

Naval Stores

According to the USDA, over-all rosin sales were 2,541 drum equivalents compared with 4,399 last week and 5,103 the week before. Sales f.o.b. plants: prompt, drums wg $12.13, nancy $12.03-$12.25 Tankcars m and below $11.25. Bags ww $11.80-$12.10, m and below $11.43-$11.50. Forward bags ww $12.40. Sales export f.a.s. ports drums: Prompt ww $12.10-$12.25 mostly $12.10-$12.15, wg $11.85-$12.10 mostly $11.85-$11.90, nancy $11.85.

Over-all turpentine sales 20,000 gallons compared with 54,000 gallons last week. Tankcars, f.o.b. plants: Prompt 21 9/10 to 24 cents per gallon.

Average price paid producers for commercial pine gum last week was $31.10 per barrel. Receipts of 18,466 barrels were 3,466 more than same week last year. Loan receipts 83 percent.

Average commercial crude gum price $31.10 per standard barrel week ending 10-14-61, previous week $31.10 year ago $45.90. Loan price this week, $27. Volume of gum delivered this week 18,466 including 15,290 loan, previous week 17,937 including 14,584 loan, year ago 15,000 including 235 loan. Average barrel content turpentine 9.94 gallons, rosin 299.2 pounds. Gum grading 30 WW, 35 WG, 20 N, 14M, 1 K and below.

September gum naval stores production totaled 17,550 barrels of turpentine and 53,630 drums of rosin, according to the Crop Reporting Board. Production during the first six months of the crop year was 25 percent above output for the same period last year. Production of wood turpentine during September was 6 percent below August output but was about the same as for September a year ago. Wood rosin production was reported at 131,400 drums, compared with 131,940 drums for the preceding month. On September 30, 1961, CCC holdings of gum turpentine of 34,590 barrels were unchanged from a month earlier while non-loan stocks increased. Sulphate turpentine and gum rosin stocks at the end of September were also higher than a month earlier, but wood rosin stocks were down slightly.

Coating Materials Briefs

POLYVINYLCHLORIDE CONDUIT: A complete line of rigid plastic electrical conduit is now being produced and marketed nationally by Stauffer Chemical Company, Molded Products Division, Los Angeles. Made of high impact (Type II) polyvinyl chloride, the conduit is listed by Underwriters' Laboratories and conforms to industry and government standards.

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Current Market Quotations

—Continued from page 29

Warfarin, 0.51%, dms., 5-24-lb lots, New York or Chicago..lb. 2.15 • —
Watchung-type reds., bbls.....lb. 1.95 • —

WAXES
Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms. ..gal.12.25 • —
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls. ..lb. .21 • .22
White precipitate, USP, powd., dms., 100 lbs., f.o.b. works lb. 5.50 • —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls..lb. .22 • —
Wintergreen oil, USP nat. northern, cns lb. 6.35 • 17.50
USP, nat. southern cns .... lb. 3.75 • 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls.....lb. .20 • .25
Witch hazel leaves, bls.....lb. .35 • .40
Wollastonite, fine paint grade, bgs., c.l., works ton.41.00 • —
bgs., l.c.l., ex whse.. ton.51.00 • —
medium paint grade, bgs., c.l., works ton 29.00 • —
bgs., l.c.l., ex whse. ....ton.39.00 • —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat crude (see Degras).
Woolfat USP (see Lanolin).
Wormseed Levant bgs .....lb. 2.50 • —
Wormseed oil (see Chenopodium oil NF).
Wormwood oil, cns.....lb. 4.75 • —

X

Xylene, coaltar, indust., tanks, works:
Bethlehem, Pa. .....gal. .29 • —
Birmingham dist. .....gal. .29 • —
Chicago dist. .....gal. .28½ • —
Cleveland dist. .....gal. .29 • —
Geneva, Utah .....gal. .29 • —
Johnstown, Pa. .....gal. .29 • —
Lackawanna, N.Y. .....gal. .29½ • —
Lone Star, Tex. .....gal. .27 • —
Lorain, Ohio .....gal. .29 • —
Middletown, Ohio.....gal. .30 • —
Minnequa, Col. .....gal. .29 • —
Philadelphia dist. .....gal. .29 • —
Pittsburgh dist. .....gal. .29 • —
Sparrows Point, Md. ...gal. .29 • —
Syracuse .....gal. .29 • —
Terre Haute, Ind. .....gal .29 • —
Youngstown, Ohio .....gal. .29 • —
Xylene, petroleum, indust., tanks, f.o.b. works:
Bayonne, N. J .....gal. .29 • —
Baytown, Tex. .....gal. .27 • —
Charleston, S. C. .....gal. .29 • —
Chicago, Ill .....gal. .28½ • —
Detroit, Mich., dlvd....gal. .27½ • —
Houston, Tex. .....gal. .27 • —
Philadelphia, Pa. .....gal. .29 • —
Providence, R. I. .....gal. .30 • —
Sewell's Point, Va. ....gal. .28 • —
Wood River, Ill. .....gal. .28½ • —
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif lb. .21 • —
dms., l.c.l., f.o.b., Richmond, Calif lb. .22 • —
tanks, frt. alld. .....lb. .19 • —
o-Xylene, dms., c.l., works.....lb. .08 • —
dms., l.c.l., works .....lb. .09 • —
tanks, works .....lb. .06 • .06½
p-Xylene, dms., c.l., works.....lb. .20 • —
dms., l.c.l., works .....lb. .21 • —
tanks, frt. alld. .....lb. .1645 • —
Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works, frt. equald lb. .23 • —
56°-58°C., m.p., dms., l.c.l., works, frt. equald lb. .33 • —
60°-62°C., m.p., dms., l.c.l., same basis lb. .40 • —
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis gal. 1.25 • —
dms., l.c.l., same basis gal. 1.30 • —
tanks, same basis gal. 1.05 • —
b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis, gal. 1.35 • —
dms., l.c.l., same basis gal. 1.40 • —
2,4-Xylidine, tech., dms., frt. alld. lb. 1.15 • —
2,5-Xylidine, tech., dms., frt. alld. lb. 1.20 • —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb. .39 • —
dms., l.c.l., same basis ... lb. .40 • —
tanks, same basis .....lb. .38 • —

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns. .....lb. 2.15 • 3.05
Yeast, brewers, debittered, USP XV, Saccharomyces dlvd..lb. .27 • —
Yeast, primary, USP XV, 150 mcg. B_1 per gram, 100-lb. dms. lb. .47 • —
270 mcg., B_1 per gram, 100-lb. dms. lb. .52 • —
300 mcg., B_1, per gram, 100-lb. dms. lb. .56 • —
900 mcg. B_1 per gram, 199-lb. dms. lb. .60 • —
Torula, USP, dlvd. .....lb. .18 • —

YELLOW PIGMENTS
Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow

Yerba santa leaves, bls. .....lb. .40 .45
Ylang Ylang oil, Bourbon, bots. lb. 7.00 • 22.00
extra, bots lb.24.00 • 33.00
Yohimbine hydrochloride, bots., tins. oz. 3.75 • 4.25

Z

Zein, 50-lb. bgs., c.l., t.l., f.o.b. works lb. .37 • —
50-lb. bgs., smaller lots, f.o.b. works. lb. .41 • .44
Zinc acetate, NF, VIII, dms lb. .53 • —
Tech., dms., l.t.l., works .. lb. .2950 • —
Zinc borate, bgs., 1,000 lbs or more, works lb. .25 • —
bgs., less than 1,000 lbs., same basis lb. .27 • —
Zinc chloride, NF, gran., dms...lb. .42 • —
NF, precip., powd., dms .....lb. .26 • —
Tech., soln., 50%, dms., c.l., works 100 lbs. 5.80 • —
dms., l.c.l., works 100 lbs. 6.40 • —
tanks, works .....100 lbs. 5.15 • —
fused, dms., c.l., works 100 lbs.10.70 • —
dms., l.c.l., works .100lbs.11.20 • —
Tech. gran., fib. dms., c.l., works..100 lbs.11.45 • —
fib. dms., l.c.l., works 100 lbs.11.95 • —
Zinc chromate bbls., dlvd. .....lb. .29 • —
Basic bbls., dlvd. .....lb. .34 • —
Zinc cyanide, dms., 1,000-lb. lots or more, works lb. .53 • —
dms., smaller lots, works.... lb. .57 • —
Zinc dust coml. bbls., c.l., works, lb. .16 • —
Pigment, bbls., c.l., works....lb. .15½ • —
bbls., l.c.l., works .....lb. .17¼ • —
Zinc fluoride, bbls., works.....lb. .49 • .50
Zinc hydrosulfite, dms., c.l., frt. alld lb. .21½ • —
dms., l.c.l., frt. alld. ... lb. .23½ • —
Zinc metal, prime western, slabs, E. St. Louis lb. .11½ • —
Prime western slabs, New York, lb. .12 • —
Zinc naphthenate liq. 8% Zn., dms., frt. alld lb. .27 • —
10% Zn., dms., frt. alld. ... lb. .33 • —
Zinc nitrate, tech., flake, 100-lb. fib. dms., l.c.l..... lb. .16½ • —
300-lb. fib. dms, l.c.l..... lb. .14½ • —
300-lb. fib. dms., c.l..... lb. .14 • —
Zinc oxide pigment, American process, lead-free bgs., c.l., f.o.b. works lb. .12½ • —
bgs., l.c.l., 10 tons or more, same basis lb. .13 • —
bgs., l.c.l., smaller lots, same basis lb. .13½ • —
Zinc oxide, leaded, 35%, bgs., c.l., mills, f.o.b. works lb. .14 • —
bgs., l.c.l., 10 tons or more, same basis lb. .14½ • —
Zinc oxide, pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis lb. .14½ • —
Zinc oxide, pigment, French process, green seal, bgs., c.l., f.o.b. works lb. .14½ • —
bgs., l.c.l. 10 tons or more, same basis lb. .15 • —
Zinc oxide, French process, green seal, bgs., l.c.l., smaller lots, same basis lb. .14½ • —
red seal, bgs., c.l. same basis, lb. .14 • —
Zinc oxide, French process, white seal, bgs., l.c.l., 10 tons or more, same basis lb. .15 • —
bgs., l.c.l., smaller lots same basis..lb. .15½ • —
same basis lb. .15¾ • —
Zinc oxide, white seal, bgs., c.l., same basis lb. .14¾ • —
bgs., l.c.l., 10 tons or more, same basis lb. .15½ • —
bgs., l.c.l., smaller lots, same basis lb. .15¾ • —
Zinc oxide, USP, 50 lb.-dms., c.l., frt. alld. lb. .15¾ • —
50 lb.-dms., l.c.l., 10 tons or more, same basis lb. .16¼ • —
50 lb.-dms., l.c.l., smaller lots, same basis lb. .16¾ • —
Zinc phenolsulfonate NF gran., dms lb. .45 .46
NF, powd. dms lb. .48 .49
Zinc resinate, precip, 7.2-7.6% Zn., dms, frt. alld lb. .45 • —
Zinc silicofluoride, dms, works, lb. 12½ .14
Zinc stearate, USP, ctns., c.l. lb. .41 • —
lb. .41 —
ctns, l.c.l lb. .42 .46
Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l., dlvd E 100 lbs. 8.00 • —
bgs., l.c.l., dlvd, E 100 lbs. 9.00 • —
Zinc sulfate in bbls 40c higher
Zinc undecylenate 75-lb fib. dms., f.o.b. works lb 2.04 • —
Zinc, yellow (see Zinc chromate)
Zinc-ammonium chloride, bgs., c.l., works 100 lbs.10.25 • —
bbls., c.l., works 200 lbs.10.85 • —
bbls., l.c.l., works 100 lbs.11.35 • —
Zinc-formaldehyde sulfoxylate, basic, 300-lb dms., frt alld lb. .26 • —
Normal, 250-lb dms., frt. alld lb. .55 • —
bgs., 5 tons to c.l., works lb. .03¾ • —
Zircon (G) gran., bgs., 5 tons to c.l., works lb. .03⅜ • —
bgs., 1 ton to 9,999-lb. lots, works lb. .04 • —
bgs., smaller lots, works lb. .06½ • —
Milled, bgs., c.l., works ..... lb. .04¼ • —
bgs., 5 tons to c.l., works lb. .04⅜ • —
bgs., 1 ton to 9,999-lb. lots, works lb. .04¾ • —
bgs., 500-1,999-lb. lots, works lb. .07½ • —
Zircon (G) in barrels 1c. higher.
Zirconium acetate, soln., 13% ZrO_2, dms. c.l. 30,000 lbs. min., works lb. .23 • —
Zirconium hydride, powd. electronic grade, dms., works lb.14.00 • 15.00
Zirconium oxide, CP, white, grd., bbls. or bgs. works lb. 1.50 • —
Electric-fused lump, bgs., 500 to 1,999-lb lots, works lb. .48½ • —
bgs., smaller lots, works.. lb. .51 • —
milled, bgs., c.l., works .... lb. .62 • —
bgs., 5-ton lots, works .....lb. .62½ • —
bgs., 1-ton to 9,999-lb. lots, works lb. .63½ • —
bgs., 500 to 1,999-lb. lots, works lb. .64 • —
bgs., smaller lots, works lb. .66 • —
Glass polishing grade, 94-97% ZrO_2, bgs., works .....lb. .55 • .65
Opacifier grade, 85-90% ZrO_2, bgs., lb. .27 • .50
Stabilized oxide, 91% ZrO_2, milled, bgs lb. .62 • .85
Zirconium oxychloride, cryst., ctns., 5-ton lots, works ..... lb. .37½ • —

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MEMPHIS, TENNESSEE

Oils, Fats and Waxes

Buying interest for oils and fats last week was light and confined to actual needs. While new business was limited, a steady flow of materials continued to move against former orders. Consumer interest in cottonseed and soybean oil was slow and quotations were slightly lower. Corn oil continued firm and unchanged at the highest price reached since February 1951. While this oil was without change offers continued scanty and crude was 25 cents bid. Peanut oil also was scarce and strong. Crude coconut oil was listless and without change. Increased use of safflower oil for edible purposes stiffened this market and prices were boosted 1½ cents per pound.

Olive oil was firmer on spot and for replacement from abroad. This strengthened the market locally and business took place at an increase of 5 cents per gallon.

Tallow and greases were featureless, and easier, the market dropping ⅛ cent per pound. Business was slow. Despite slow demand offerings continued light and were firmly held. Lard was irregular, but closed unchanged.

Industrial oils were in good demand against contracts, while new business was confined to actual needs. Brazilian castor oil was dull and fractionally lower. Consumer demand for tung oil continued to lag and sellers showed more willingness to accept lower bids. Linseed oil was well held despite lower flaxseed. Crude menhaden oil was quiet, with buyers and sellers still ½ cent apart. Palm oil was weak and dropped ¼ cent per pound.

While edible vegetable oils were easier, oilmeals were higher and advanced $1.50 to $5.50 per ton. Active demand for soybean meal for nearby boosted market $5.50 per ton. Cottonseed meal advanced $1.50 per ton and old process linseed meal $1.50 per ton.

Price Trends

Advanced

Cocoa butter, 2c. per lb.
Cottonseed meal, $1.50 per ton.
Linseed meal, expeller, $1.50 per ton.
Olive oil, spot, 5c. per gal.
Peanut meal, $2 per ton.
Safflower oil 1½c. per lb.
Soybean meal, $5.50 per ton.

Reduced

Castor oil, Braz., ¼c. per lb.
Cottonseed oil, crude, ⅛c. per lb.
Refd., ⅛c. per lb.
Greases, ⅛c. per lb.
Palm oil, ¼c. per lb.
Soybean oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Tallow, inedible, ⅛c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Oct. 28, 1960
115.24	112.84	110.79	107.89

For Current Prices See Page 10

Vegetable Oils

Castor — Deliveries against contracts were in good request. Brazilian oil was quiet and available at 16¼c. per pound, tankcars, New York, prompt delivery. Domestic grades moved in fair volume.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	.....	1,700,000
Previous week	.....	2,600,000
Corresponding week, 1960	.....	964,000
Total this year	.....	77,800,000
Corresponding period, 1960	3,353,450	73,294,000

Coconut—Crude was quiet and unchanged. Prompt shipment was quoted at 11c. to 11⅛c. per pound, tankcars, Pacific coast. The New York market was nominal at 12¼c. tankcars, f.o.b. prompt delivery.

Corn—This market was strong. Crude was bid at 25c. per pound, tankcars, f.o.b. mills, prompt shipment. Offers were scanty. Refined oil was maintained at 28.23c., New York basis.

Cottonseed — Futures backed and filled scoring narrow declines last week on the New York Produce Exchange. Trading was moderate. October tenders increased to 44 contracts for the month. Trade interests absorbed the bulk of December offers. Cash oil was slightly lower. Refined salad oil declined to 15¾c. per pound, tankcars, New York for nearby delivery.

Crude oil was off ⅛c. and quoted at 11¾c. to 11⅞c., tankcars in the Valley; 11¾c., Texas and 12c. to 12⅛c., southeast, as to location.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, Octobed 27, follow:

	Sales	High	Low	Close
	Cents per Pound			
Dec.	367	13.79	13.62	13.73 S
March ...	224	13.90	13.68	13.72 S
May	215	13.98	13.75	13.78 S
July	40	13.89	13.76	13.79@13.80

Total sales and switches, 846 contracts.

Linseed—Withdrawals against existing backlogs continued at brisk rate. Most paint manufacturers hold balances to year-end. Prices were unchanged, raw oil at 15.20c. per lb., in tankcars, f.o.b. Minneapolis. October - January delivery; 15.40c.; February-April, and 16.28c., f.o.b. New York.

Oiticica—Deliveries continued in good demand against existing contracts. New business was reported fair. Tankcars were well held at 14¼c. to 14½c. per pound, New York, as to sellers, prompt delivery. Drums were unchanged at 16c. to 16½c. spot, according to quantity.

Olive—Shipments were firmer because of improved demand. Spanish oil ranged from $53 to $54.50 per 100 kilos, drums, f.o.b. ports, prompt shipment depending upon quality and seller. This strength was reflected in the local market and prices advanced 5c. to $2.40 and $2.45 per gallon, drums exwarehouse, with trading thereat.

Palm—Prices were easy and off ¼c. Demand continued hand to mouth. Drums were lower at 14½c. to 15½c. per pound, spot as to quantity and tankcars at 11¾c.

Peanut—Crude continued scarce and firm. Tankcars was again sold at 19c. per pound, f.o.b. mills, prompt shipment. Refined oil was maintained at 22¼c., tankcars, New York basis.

Safflower—This market was stronger because of the increased use for edible purposes. Tankcars were advanced 1½c. to 19c. per pound, delivered Atlantic coast. Drums were higher at 21c. to 22.3c., spot, depending upon quantity.

Soybean—Crude was quiet and irregular closing slightly lower. Tankcars were quoted at 10.40c. per pound, f.o.b. Decatur, unrestricted, prompt shipment. Refined salad was easy and available at 12.65c., tankcars, New York, prompt delivery.

Tung—Quiet demand has taken the edge off this market and sellers were more inclined to shade recent high quotations. Tankcars were available at 30¼c. per pound, New York, prompt delivery. Drums ranged from 31¾c. to 32c., spot, according to quantity.

Cottonseed Crush: September

Cottonseed received and crushed and production of cottonseed products during September and August, 1961, as compiled by the Bureau of Census, follows:

Cottonseed

	September	August
	Tons	
Receipts at mills	595,600	177,800
Crushed or used	334,200	144,400
Stocks at mills	483,300	221,900

Crude Oil

	Pounds	
Produced	109,400,000	48,900,000
Stocks at mills	24,700,000	5,900,000

Cake and Meal

	Tons	
Produced	149,600	68,600
Stocks at mills	73,300	89,400

Hulls

	Tons	
Produced	74,600	34,800
Stocks at mills	86,100	80,300

Miscellaneous

Cocoa Butter—Stocks on spot were scarcer and prices were higher at 60c. to 62c. per pound, spot, as to quantity and seller.

Copra—Trading was slow. Prompt

—*Continued on page 60*

FATTY ACIDS

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White Oleines
Hydrogenated Fatty Acids

Vegetable Fatty Acids
Coconut Fatty Acids
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CLEVELAND, OHIO

1—Raymond #73612 Super High Side 6-Roll Mill, with whizzer, cyclone, piping and motors.
1—Raymond #5047 High Side 4-Roll Mill, with whizzer, cyclone and piping.
1—#1 Raymond Impact Mill, with whizzer, cyclone and piping.

1—Kilby Nickel Single Effect Force Feed Evaporator, 1200 sq. ft.
2—Oliver 5'3"x4' Nickel Clad Rotary Vacuum Filters.
2—Pfaudler 300 and 200 gal. Glass Lined Jkt. Agt. Reactors.
1—Sperry 30" C.I. Filter Press, 27 chambers.
1—Buflovak 32"x90" Double Drum Dryer.
4—Feinc 8'x12' Rotary Vacuum Steel Filters, string discharge.
2—6'6" dia. x 60' Rotary Dryers.
1—5½'x4½'x60' Rotary Dryer.
7—Dorr 80' and 40' thickeners.
2—Fuller Kinyon Pumps H6.
1—Link-Belt 24"x90' Belt Conveyor.
5—Nickel Centrif. Pumps, 2", 3".

BRILL FOR VALUES

CENTRIFUGES

1—Bird 18"x28" Solid Bowl Continuous 304 S.S.
2—Bird 40"x60" Solid Bowl Continuous 316 S.S. UNUSED.
5—Sharples C-20 and C-27 Super-D-Hydrator 316 S.S.
1—DeLaval AC-VO Continuous S.S. 20 HP.
3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
2—Sharples #16, 304 S.S., 3 HP motor.
1—Tolhurst 40" 347 S.S. Imperforate Basket, 15 HP, UNUSED.
1—Bird 40" Suspended Imperforate Basket, 40/10 HP.

TANKS

25—500 to 3500 gal. Vertical 304 S.S. Tanks opened and closed, some agitated.
6—7500, 6000 and 2000 gal. Rubber Lined Tanks.
1—1500 gal. Stainless Pressure Tank, 5'x10', 90#.
1—2000 gal. Horizontal 304 S.S. Tank, 5'x12'.
1—2500 gal. Vertical 304 S.S. Tank, 8'x7'.
1—10,000 gal. Rubber Lined Tank, 10'x17'6".
1—5500 gal. 316 S.S. Clad Pressure Tank 250 PSI.
2—3000 gal. Aluminum Tanks, 7'x11'.
5—25,000 gal. Aluminum Storage Tanks.

REACTORS — EVAPS — CONDS — COLS

4—Glascote 500 glass lined, Jacketed Reactors.
1—Pfaudler 125 gal. 304 S.S. Jkt. Agit. Reactor, 150# int., 125# jacket.
3—Pfaudler 100 & 50 gal. glass lined, Jacketed, Agitated Reactors.
1—8650 sq. ft. NICKEL double effect forced Circulation Evaporator.
1—650 gal. 304 S.S. Reactor with 100 sq. ft. Bayonet Heater.
1—3000 sq. ft. O. G. Kelly, 309 S.S. forced feed Evaporator, UNUSED.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—300 sq. ft. Swenson 347 S.S. Single Effect Evaporator.
1—250 sq. ft. Buflovak 304 S.S. Single Effect Evaporator.
10—Stainless Heat Exchangers; 910, 536, 370, 250, 131, 70 sq. ft.
5—Pfaudler 26 sq. ft. glass lined Condensers.
1—4'6"x46' 316 S.S. Clad Column, 250 PSI.
8—3'x20', 30"x19' 347 S.S. Packed Columns.
1—24"x35' 304 S.S. Bubble Cap Column.

FILTERS

2—Niagara 370 sq. ft. Vert. 304 S.S.
1—Niagara 110 sq. ft. Vert. 316 S.S.
1—Niagara 92 sq. ft. Vert. Jkt. 316 S.S.
1—#10 Sweetland 36 leaves, 3" centers.
1—#5 Sweetland 304 S.S., 120 sq. ft.
1—Oliver 6' dia. Horizontal 316 S.S.
1—Oliver 4' dia. Monel Horizontal.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet.
1—Hercules 400 sq. ft. 304 S.S. Pressure.
3—Oliver Precoat 5'x6', 5'x10', 8'x10'.
1—Oliver 5'3"x8' Steel Rotary Vac vaportite housing.
1—Feinc 3'x1' 316 S.S. Rotary Vac.

DRYERS

1—Buflovak Vacuum Shelf, 17—60"x80" shelves.
2—Buflovak 42"x120", atmospheric double drum complete.
1—Buflovak 32"x90" Atmos. Twin Drum.
2—Devine 4'x9' single drum, atmospheric.
1—Buflovak 3'x10' Rotary Vacuum.
6—Louisville Rotary Steam Tube 6'x30', 6'x50'.
2—Louisville 8'x50' Stainless Steel Lined Rotary.
3—Rotary Dryers, 4'x40', 6'x50', 7'x80', 8'x80'.
1—Louisville 4½'x25' Inconel Rotary.
1—Link Belt 6'4"x24' Rota Louvre, 316 S.S.
1—Atmos. Tray, 13 shelves, 3'x3'.
2—10' and 4' dia. 304 S.S. Spray Dryers.
2—Wyssmont, 304 S.S. 6'2" and 9'6" dia.

MIXERS

1—Sturtevant 75 cu. ft. 304 S.S. Rotary Batch Blender, 20 HP.
1—Abbe 110 gal. 304 S.S. Jacketed Agitated Vacum Dispersall Mixer.
2—Baker Perkins 150 and 100 gal. jacketed double arm Sigma Blades.
1—Baker Perkins 50 gal. jacketed.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
1—Steel jacketed Powder Mixer, 225 cu. ft.
1—50 cu. ft. Powder Mixer, 304 S.S.
1—Day 120 cu. ft. Jumbo Powder Mixer, 25 HP motor.
1—45" dia. Lancaster Mixer, 7½ HP.

MISCELLANEOUS

3—Kinney Vacuum Pumps, 1000 cfm, 10 microns, 15 HP.
3—Hardinge 6'x36", 5'x22" and 3'x24" steel lined conical Ball Mills.
1—Sturtevant 6' dia. Air Separator, 10 HP.
1—Komarek Briquetting Press, 3½" face rolls.
2—Mikro Pulverizers, 2TH and 1S1.
3—Swenson Walker Continuous Crystallizers, 24"x30" sections.
2—Tyler Hummer 3'x10' Double Deck Screens.
5—Day Roball Sifters, 40"x120", 40"x84", Double Deck.
6—Nash H10, H8, H6, H5, L5 Vacuum Pumps.
3—Nash H6, L3 347 S.S. Vacuum Pumps.
2—Stokes Rotary Tablet Machines DD2-DDS2.

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MILLS—Day HY-R Speed Mill, 20 HP XP.
Raymond #00&0000 Pulverizers
Mikro Pulverizer #4, 2S1, 2TH, 1SH.
Hammer Mills & Pulverizers 3 to 50 HP.
Williams #3 & #2XX Hammer Mills.
Taylor-Stiles 7½ HP Cutter.
Rotary Cutters 1 HP & up.
Sprt-Wald Stainless Spike Crusher.
Pebble, Jar & Ball Mills, Lab to 6' x 8'.
3 Roll, 9" x 24", 12" x 30", 16" x 40".
Lehmann 4 Roll W. C. 12" x 36" Steel.
MIXERS—Baker Perkins 100 gal. Jack.
Baker Perk. 15 gal. horiz. Mixer
Day Imperial 75 & 150 gal. mixers jack
Change Can Mixers 8, 15, 40 gal.
Day Jumbo 700 gal. horiz. Mixer
Spr. Wald. 10,000 # horiz spiral mixer
Orv Simpson Rotex Sifters 40"x84"
Blystone 3000# horiz. spiral Mixer.
Day 1000# horiz. Dry ribbon Mixer.
Dry Spiral Mixers 50 to 10,000#.
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Simpson 6' Dia. Intensive Mixer.
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3—Stearns Rogers 8' x 40' rotary Dryers, ½" shell. Fans & Cyclones included.
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5295—Buflovak Stainless Steel Sanitary Thermo-Compression Evaporator with all accessories
3750—Zaremba Double Effect INCONEL Evaporator with calandria; 430 sq. ft. of surface; with accessories
2274—Swenson Quadruple Effect Long Tube Evaporator
3475—Zaremba Single Effect Cast Iron Evaporator; 130 sq. ft. Copper tubes
2895—Devine Single Effect Cast Iron Calandria type; 28"x8'
3870 M2—Mojonnier 3' Dia. S/S Calandria Evaporator; 30.5 sq. ft.
5020—Stainless Electrically Heated 60 Gal. Vacuum Evaporator; 20"x40" with Heat Exchanger
2598 D1—Copper Vacuum Pan 275 Gal.; 40"x72" overall; coil heated
487—Zahn & Nagel Continuous Evaporator; 2500 lbs. per hour, wiped surface, falling film.
3497 S7—Jacketed Crystallizers; 24"x12'
5411 C15-20—Five Baker Perkins Stainless Steel Jacketed Kettles 540 Gal. 4'x5'5" with agitators; Bolted Manhole Covers
3994 K4—Stainless Vacuum Still; Coil Htd. 755 Gal. 4'6"x6'; with Column
4840 B36—Electrically Heated 800 Gal. Stainless Steel Kettle 60"x60"
4840 B39—1200 Gal. Steel Kettle, Electrically Heated: 74"x68"
4840 B37—Stainless Vertical Kettle 5'x8'9", 1300 Gal. set in a cooling Jacket
5529 Y1-2—Two Pfaudler Stainless Steel Jacketed 1500 Gal. Vessels, 5'x10'
5048 D1-2—Struthers Wells Type 316 Stainless Vertical Mixing Kettles, 2000 Gal. 6'x10' Jktd. and Agitated
5291 A6—Stainless Steel 2000 Gal. Jacketed Kettle: 64"x10'8"

MIXERS

4343 D—7 Baker Perkins Heavy Duty Jacketed Mixers Sigma Double Arms; Size 17; 200 gal. working
5070 F1-2—Stainless Lined Double Sigma Vacuum Mixers; 300 Gal. 56" x 56" x 44"; with 60 HP Motors
4921 T53—Baker Perkins Hexagonal Jacketed Baratte; 150 Gal. good for Vacuum; 36" x 39"
4261—Jacketed Crutcher; 100 Gal. 36" x 24"; bevel gear drive
5475 T1—Lancaster Counter Currebt Batch Mixer; 12" x 5" Pan; 6" Muller
3668-H1—Lancaster Model EAG 3; diameter 45⅝"; 5½ cu. ft.
5512—Patterson-Kelley Twin Shell Blender; 5 cu. ft. Motorized
5471 B1-2—Sturtevant Rotary Blenders Size 7; 7' x 40'; 125 cu. ft. Motorized
M29 A402—Struthers Wells Rotary Blender 6' x 6'
5005—Blaw Knox Conical Blender 9'6" Dia; 10,000 lb.
M29 C800—Sturtevent No. 12 Rotary Batch Blender; 450 Cu. Ft. 40 HP
5360—Day MOGUL Double Arm 150 Gal. Jacketed Mixer good for Vacuum; 75 HP

CENTRIFUGALS

4483 G27—Tolhurt 40" Rubber Covered; Perforate Basket; 5 HP
5504—Western States 40" STAINLESS Steel Perforate Basket; 25 HP Vertical Motor
4507 A-16—Six Tolhurst 40" Suspended type centrifugals Rubber Covered Perforate Basket and Curbs; Monel Plow; 2 Speed Motors, 7½-15 HP
5147 S13-14—Two Bird 24" Continuous Horizontal Centrifuges in MONEL and Rubber Covered
4279 L1—Sharples H2 Nozzlejector; 15 HP XPL; 100 GPH
3240 M3—Sharples Supercentrifuge MB4-21-1JY S/S
4737 A-18-19—Two Sharples Super Centrifuges Type M85-34-5 with 2 HP motor
5161 B6—Sharples Stainless Steel Pressure Tite No. 16 Centrifuge
4311 S1—Sharples C 27 Super-D-Hydrator in Type 316 Stainless; 40 HP
4737 A20-21—Two De Laval Centrifugal Oil Clarifiers; Model 65 N13
4945—De Laval Industrial Hermetic Separator No. VO-244 in Type 316 Stainless with motor
3269—Sharples DeWaxing Centrifuge; Type DM202-23C
4081 N22—Patterson-Columbia Separator Centrifuge; Non-Corrosive; 7½" HP
4366—Podbielniak Counter Current Solvento Extractor; Type 316 contact parts

MILLS — PULVERIZERS

4551 S4—Abbe Stainless Steel Lab. Ball Mill 9"x18"
5354 M6—Abbe Pebble Mill 3'x3'
4830 B6 to 11—Six Patterson Porcelain Lined Pebble Mills, Type B; 30"x42"
5013 H1—Abbe Jacketed Steel Ball Mill 3'x4' with balls
5013 H2-3—Steel Ball Mills Jkdt.; 42"x32"; 54"x48"
5310—Abbe No. 3 Buhrstone Lined Pebble Mill; 52"x36"
5354 M7—Patterson Steel Ball Mill 54"x54"; 15 HP Motor; Steel Balls
5540 T16—Unlined Steel Ball Mills: 3'x5'; 4'x6'; 4'6"x5'6"; 5'x7'; 5'3"x7'3"; 6'x8'
5354 M5—Abbe Size #2½ Pebble Mill; 5'x6'; 10 HP
5164 A2—International Porcelain Lined Pebble Mill; 5'x6'; with 15 HP Motor
4879—Jacketed Steel Ball Mill 5'x2'6"; lifting bars with 25 HP Motor
3443—International 8'x8' Porc. Lnd. Pebble Mills; 50 HP Gearmotors
4693—Jacketed Buhrstone Lined Pebble Mill; 6'x6'; 1000 Gal.; 25 HP
5395 M1-2—Allis Chalmers 2 Compartment Compeb Mills: 7'x22' Meehanite Liners; each with 400 HP Motor
5395 M4-5-6—Allis Chalmers Continuous Tube Mills 7'x22' with ribbed Meehanite Liners
5356 N29—Hardinge Conical Ball Mill 8"x36" Fan and Dust Collector
5540 T17—Rod Mills: 6'4"x6'4"; 6'x8"
5147 S2—Schutz O'Neill 22" Style "D" Pulverizer

PEBBLE MILLS: Abbe 6'x6', 4½'x5', 3'x4½', 24x18".

HAMMER MILLS: Jeffrey, Williams, Sturtevant, 20-30 h.p. motors.

MIXER: Banbury #3, 75 h.p. mtr.

MILL: Thropp 18x50", 125 h.p. mtr.

Agitators, Filters, Vacuum Pumps.

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RAYMOND HI SIDE MILL

Model 5048 or 5058. New spider, journals, rollers, plows. Has fan, whizzer, air separator, stocking collector, four motors. New 1951, latest model. Priced to sell.

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COLUMNS

78"x18'—14 trays.
72"x30'—21 trays.
48"x41'—40 trays.
36"x20' Packed.
14"x17'6" Packed.
12"x18'8" Packed.
20"x27'; 16"x21' Gl. Lined.

FIVE CHEMICAL PLANT LIQUIDATIONS NOW IN PROGRESS WRITE FOR CATALOGS

HEAT EXCHANGERS

2300 sq. ft. 564— 1"x15' tubes.
1000 sq. ft. 370—¾"x14' tubes.
800 sq. ft. 375—⅝"x14' tubes.
615 sq. ft. 375—⅝"x10' tubes.
420 sq. ft. 268—¾"x 8' tubes.
306 sq. ft. 130—¾"x12' tubes.
225 sq. ft. 96—¾"x12' tubes.
188 sq. ft. 96—⅝"x12' tubes.
146 sq. ft. 91—⅝"x8'6" tubes.
68 sq. ft. 22—¾"x16' tubes.
(8) 77 sq. ft. Fintube.
2", 3", 4" Glass Pipe Coolers.

TANKS

108,000 gal. 18'x61'.
17,500 gal. 15'x16'.
11,500 gal. 12'x15'.
10,500 gal. 10'x23'.
4,500 gal. 6'x25'.
4,000 gal. 8'x12'.
3,500 gal. 8"x 9'.
1,200 gal. 5'x 8' Clad.
750 gal. 5'x 5'.
500 gal. 4'x 5'.
(20) 400 to 50 gal.
2,500 gal. Glass Lined.

REACTORS

Pfaudler ELL 500 & 300 gal., 75 Psi Glass Lined, jacketed, agitated.
Dopp 1700 to 1000 gal. Ni-Resist, jacketed, Type "J" agitator, 150 PSI.
Patterson 500 gal. Steel, jktd., agit., 50 PSI.
Alloy Tank 750 gal. 316 Stainless 42 PSI.
Alloy Tank 300 gal. 316 Stainless 42 PSI.

KILNS & DRYERS

Link Belt 604-24 S.S. Roto Louvre.
Link Belt 7'x45'x½" Rotary Dryer.
4'x40'x⅜" Rotary Dryer, New Shell.
Buflovak 6"x8" Vacuum Double Drum.
Blaw Knox 6'x5'6" Vacuum Single Drum.
F. J. Stokes 38A—16 Tray Dryer.
Link Belt 7'x45'x½" Rotary Kiln.
Allis-Chalmers 8'x60'x⅝" Rotary Kiln.
Vulcan 6'x124'x¾" Rotary Kiln.
Ruggles 10'x100' Rotary Dryers.

CENTRIFUGES—FILTERS

Sharples C27 Stainless Super-D-Hydrator.
Sharples #6 Super Centrifuge S.S. bowl.
Rochester 30" S.S. Susp. Centrifuge.
Bird 4'x12" S.S. Rotary Vac. Filter.
Goslin 36"x24" S.S. Rotary Vac. Filter.
Kelly #50 Pressure Leaf Filter.

MISCELLANEOUS

Swenson 435 sq. ft. S. S. Evaporator.
Baker Perkins DIM 300 gal. Stainless Sigma Blade Mixer.
Stokes RDS2, DDS2 Rotary Presses.
Rotex 60"x84", 30"x96" Sifters, 1 Deck.
Sweco 48" Triple Deck Sifter.
Swenson 24"x20' S.S. Crystallizers, Jktd.
Nash L3 Hytor SS Vac. Pump 140CFM@15".
Nash #4 Hytor Vac. Pump 650CFM@15".
SS Centrif. Pumps 1" to 3"; 10 to 750 GPM.

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Allis Chalmers machinery for entire raw and finish grinding departments. Capacity 4000 barrels per day. Mills and Separators may be purchased separately.

RAW END (WET): Two 7' x 22' Mills (two compartment).
FINISH GRINDING: Two 10'6" dia. x 8' Ball Mills.
Three 7' x 22' Mills (single compartment).

Each of these mills has Mechanite liners, feeder and direct coupled 400 HP 3/60/2200 V. motor. Operated in closed circuit with three 14-ft. Raymond DOUBLE WHIZZER Mechanical Air Separators, new in 1950, each V-belt driven by 75 HP motor. Connected bucket elevators, screw conveyors, feeders, etc., included.

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LIQUIDATIONS— LITTLE ROCK, ARK. ORANGE, TEXAS OMAHA, NEBRASKA

STAINLESS STEEL TANKS

3—20,000 gal. vert. T316LC SS crystallizing tanks, 14'x15' cone bottom, cone top, 3/8".
6—13,300 gal. vert., T321 SS, 11'10"x15'x7".
1—12,000 horiz., T304 SS, 9'6"x20', dished, UNUSED.
3—11,800 gal. vert., T316 SS, 12'x14'.
4—10,000 gal. vert., T316 SS, 12'x12', 3/16", Turbine Agit., Nettco #WT-37 drive, 15 HP.
7—5800 gal. vert., T316 SS, 10'x10', 3/16", Turbine Agit., 10 HP.
2—5700 gal. horiz. T304 SS, 6'4"x24', UNUSED.
2—4500 gal. vert., T304 SS, 8'x12', UNUSED.
18—3650 gal. vert., 10'x7', open top, 3/16".
1—3400 gal. horiz., T304 SS, 6'6"x16', dished.
1—3350 gal. vert., T304 SS, 8'x8'6", dished, 50 psi WP, w/Agit.
1—3300 gal. vert., T304 SS, 6'x14'6", dished.
1—3250 gal. vert., T316LC SS, 6'x15'10".
1—3200 gal. vert., T304 SS, 6'6"x12', dished.
2—3000 gal. vert., T304 SS, 6'x15', dished.
3—3000 gal. horiz., sanitary milk tanks.
2—3000 gal. vert., T347 SS, 5'x19', ASME 60 psi.
7—3000 gal. vert., T316 SS, 8'x8', Agit.
1—2800 gal. horiz., T304 SS, 5'x18', dished.
2—2600 gal. vert., T316 SS, 7'x8', dished, coils.
1—2350 gal. vert., T304SS, 5'x16', 3/16", coils.
1—2250 gal. vert., T316LC SS, 6'x8', flat heads, 3/16".
1—2100 gal. vert., T316 SS, 7'x6'3", dished.
5—2100 gal. vert., T304 SS, 8'x5'6", dished.
1—2100 gal. vert., T316 SS, 6'x9'10".
1—2000 gal. vert., T304 SS, 8'x5', cone.
1—2000 gal. horiz., T304 SS, oval.
1—1650 gal. vert., T304, 5'x11', dished.
60—1350 gal. horiz. T347 SS, 4'x14' coils, dished, 60 psi.
1—1300 gal. vert., T304 SS, 6'x6', dished.
9—1300 gal. vert., T321 SS, 7'x4'6".
1—1200 gal., vert., T304 SS, 4'x12'6", dished.
2—1100 gal. vert., T347 SS, 4'x11', 60 psi.
100—Stainless tanks, 14 to 1000 gal.

MISC. TANKS

8—28,000 gal. horiz. steel, 11'x38', 75 psi WP.
7—28,000 gal. horiz. lead-lined, 11'x38', dish.
1—14,000 gal. horiz. steel, 8'x30', 250 psi WP.
10—11,500 gal. horiz. Pfaudler blue glass-lined, 8'x30', dished, 20 psi.
2—11,000 gal. horiz. steel, 8'x27', 300 psi WP.
2—9000 gal. horiz. steel, 8'x23', dished.
8—5800 gal. vert. rubber-lined, 10'x10', stainless turbine agit.
1—5500 gal. horiz. Alum., 8'6"x12', dished.
45—5200 gal. horiz. steel, 6'x24', dished.
1—3000 gal. vert. copper, 8'x8', dished.
1—2100 gal. vert. Alum., 6'x10', dished.

DRYERS — KILNS

5—F. J. Stokes #138J-16 Vacuum Shelf Dryers, 195 sq. ft., 16 shelves.
1—Buflovak 98 sq. ft. Vac. Shelf dryer.
2—Buflovak 42"x120" Dbl. drum dryers, ASME 160 psi.
1—American 42"x120" Dbl. drum dryer, stainless.
1—Buflovak 32"x52" Dbl. drum dryer.
1—American 36"x84" Dbl. drum dryer, vacuum.
1—Buflovak 6"x8" Dbl. drum dryer, Vac.
1—Buflovak 5'x12' single drum VACUUM dryer—UNUSED.
1—Vulcan 10'x11'x175' long rotary kiln, 2-tires, 13/16".
3—10'x100' rot. dryers, 5/8" welded.
1—Link-Belt #900-30 Roto-Louvre dryer.
2—Bartlett & Snow 8'x6"x70' rotary dryers, 5/8" welded.
1—Davenport 8'x60' rot. dryer, 7/16" welded.
1—6'x150' rotary kiln, 5/8" welded.
1—Link-Belt #604-18 Roto-Louvre dryer.
1—Louisville 5'x30' steam-tube dryer.
2—Louisville 4'x6"x25' steam-tube dryers.
1—Standard Steel 3'x23' rot. dryer.
1—B. & S. 3'x19' dryer, complete.
1—3'x15' Everdur shell dryer.
1—12"x8' Stainless rot. dryer.
3—B. & S. 14"x18'5" rot. stainless calciners.

AUTOCLAVES — KETTLES — REACTORS

1—2000 gal. Glascote blue G/L reactor, jacketed, ASME vacuum int., 95 psi jkt.
45—1400 gal. Pfaudler blue G/L jacketed kettles, Stainless cover, 3 HP Agit., baffle.
4—1350 gal. T347 SS jkt. kettles, Agit.
14—1250 gal. Pfaudler blue G/L jacketed closed reactors, Agit. vacuum, w/cond.
1—1000 gal. Dopp Cast Iron Kettle, 125 psi jacket, 25 HP anchor Agit.
1—1000 gal. T316 SS jkt. reactor, ASME, UNUSED.
2—1000 gal. Patterson steel dissolvers, jkt. & Agit.
4—800 gal. Struthers-Wells T316ELC SS clad autoclaves, 3'-6"x10', horiz., ASME 400 psi WP, w/(3) vert. titanium Agit.
1—750 gal. Graver T304 SS jkt. reactor, Agit.
1—600 gal. Stainless jacketed evaporating & crystallizing kettle, Agit.
5—600 gal. Pfaudler Stainless Steel jacketed kettles.
2—500 gal. T304 SS jkt. reactors, ASME, Vacuum, UNUSED.
6—465 gal. T304L SS reactors, 150 psi int, 165 psi jkt.
1—300 gal. Pfaudler blue G/L reactor, jkt., Agit., ASME.
1—300 gal. Clascote blue G/L reactor, jkt., Agit., ASME.
1—300 gal. T304 SS jacketed reactor, ASME, UNUSED.
65—250 gal. Pfaudler blue G/L kettles, jkt.
2—200 gal. T304 SS jkt. reactors, ASME, UNUSED.
1—200 gal. Readco jkt., T304 SS, Dbl. Motion Agit.
1—175 gal. horiz. Titanium autoclave, 2'x7', 1000 psi, w/(3) vert. Agit.
1—175 gal. T304 SS jkt. reactor, Agit.
2—125 gal. T316 SS jkt. fermenter kettles.
2—100 gal. T304 SS jkt. reactors, ASME, 80 psi jkt., vac. int.—UNUSED.
1—30 gal. Pfaudler blue G/L jkt. reactor.

MIXERS — MILLS

40—Baker Perkins #17, 200 gal. double-arm mixers.
1—Baker Perkins #15-UUMM, 100 gal. dispersion-blade jkt. mixer, 100 HP.
1—Baker Perkins #15, 100 gal. sigma-blade jkt. mixer, T347 SS.
1—Day 100 gal. sigma mixer, T304 SS.
2—J. H. Day #5, 75 gal. sigma mixers.
1—Sturtevant #7, 75 cu. ft. T304 SS blender.
1—Worthington 75 cu. ft. rotary blender.
1—Raymond 66", 6-roller hi-side mill.
1—Raymond 50", 5-roller hi-side mill.
1—Hardinge 8'x48" conical pebble mill.
2—Hardinge 7'x36" conical pebble mills.
1—Allis-Chalmers 6'x12' rod mill, 125 HP.
1—Bonnot 5'x10' ball-rod mill, 75 HP.
3—Allis-Chalmers 5'x22', ball-tube mills.
12—Abbe Eng. 6'x8' batch pebble mills.
2—Patterson 8'x10' batch pebble mills.
3—Fitz. SS mills: #D, F, K-8.

AT LITTLE ROCK, ARK.

150—Worthington Worthite cent. pumps: 4"x3", 3"x2", 2"x1-1/2", etc. W/motors.
60—LaBour 2" self-priming stainless centrif. pumps, w/motors.
60,000'—Stainless Steel pipe, sch. 10 & 40, 1", 2", 3", 4", 6", etc.
10,000'—Stainless Steel vapor pipe; 6", 12", 16" & 20" dia.
10,000—Stainless Steel flanged valves: gate, globe, check—all sizes & Mfrs.

COLUMNS—HEAT EXCHANGERS EVAPORATORS—BOILERS

2—Vulcan T316SS 10 plate bubble-cap columns: 110", 60" dia.
1—36" dia. x 6 plate T316SS column.
6—30" dia. x 19' T347SS packed columns.
8—24" x 16' Duriron cast packed columns.
1—24" x 33' Duriron SS packed column.
20—Copper bubble-cap columns: 20" to 54" d.
1—1960 sq. ft. T316 SS exchanger, ASME.
2—1450 sq. ft. T316 SS condensers.
6—1450 sq. ft. Stainless gas heat exchangers.
3—1000 sq. ft. Duriron pipe coolers.
1—900 sq. ft. T304 SS horiz. exchanger.
2—800, 730 sq. ft. T316 SS heat exchangers.
6—691 sq. ft. copper Dbl.-pipe coolers.
8—400 sq. ft. T304 SS pipe coolers.
12—Amer. Heat Reclaiming T316L SS spiral heat exchangers: 162, 73 sq. ft.
3—131 sq. ft. T304 SS horiz. exch., ASME 75 psi.
15—75 sq. ft. nickel 2" IPS pipe coils.
20—T316 SS condensers & heat exchangers: 510, 427, 410, 400, 390, 290, 277, 264, 250, 50, 47 sq. ft.
20—Duriron pipe coolers, 10 to 170 sq. ft.
7—4000 sq. ft. single-effect calandria evap., copper tubes, C.I. bodies.
1—1250 sq. ft. Mojonnier Stainless evap.
1—1060 sq. ft. Gen. Amer. T316 ELC forced circulation evaporator, 1953, w/pumps, piping, etc.
3—Buflovak double-effect Stainless Vert. long-tube type evaporators: 840, 710, 588 sq. ft.
1—630 sq. ft. Struthers-Wells T316 SS calandria evap.
1—370 sq. ft. Henzey Stainless evap.
1—320 sq. ft. Steel reboiler evap.
1—250 sq. ft. Buflovak T304 SS evap., forced circulation, recompression.
1—118 sq. ft. F. J. Stokes T316 SS still.
5—Comb. Eng. 435 HP boilers, 300 psi.
3—Edgemoor waste-heat boilers, 250 psi.
2—Keeler 200 HP coal-fired boilers.
3—Kewanee Package boilers, 15 psi, gas-fired; 135, 30, 15 HP.
1—Besler 40 HP package boiler, 1100 psi.

CENTRIFUGALS — FILTERS

1—Bird 18"x28", T304 SS, conical bowl.
3—Bird 24"x24", type CH, monel.
1—Bird 24"x38", steel cylin. bowl.
7—Sharples #C-20, #C-27 Super-D-Hydrators, T316 SS.
1—Sharples 16-P centrif., T304 SS, pressure-tite.
25—Sharples #AS-16V super centrifugals, Inconel, sludge disch., vapor-tite, 3 HP.
1—Tolhurst 48" susp., T304 SS perf.
4—A.T.&M. 40" susp., T304 SS perf. & solid.
1—A.T.&M. 40" susp., T316 SS, perf., 30/5 HP.
1—Tolhurst 40" susp., nickel-clad.
1—A.T.&M. 32" susp., T304 SS, perf.
1—A.T.&M. 12" susp., T304 SS perf.
5—Shriver 48" cast iron P. & F. filter presses, 50 chambers, Hyd. closure, 1250 sq. ft.
3—Valley 36" Alum. P. & F. filter presses, 65 chambers, Hyd. closure, 1000 sq. ft.
1—Sparkler 88 sq. ft. 304 SS filter, #RSC, horiz. tank, vert. leaf.
4—Eimco 8'x8' rot. vacuum filters.
1—Eimco 4'x8' rot. vacuum filters, T316 SS, precoat.
3—Feinc 3' dia. T316 SS horiz. rot. vac. filters.
1—Oliver 3'x4' T316 SS rot. vac.
2—Oliver 5'3"x3' rot. vac. filters, T316 SS.
6—Davenport dewatering presses: #1A, 2A, 3A.
2—Niagara #36H-350-2, T316 SS filters, horiz. tank, vert. leaf, 350 sq. ft., jacketed.
1—Niagara 510 sq. ft. T316SS vert. leaf.
1—Niagara 54 sq. ft. T304SS vert. leaf.

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1—Niagara SS horizontal jacketed plate filter, Model 3312D.

2—AT&M 12" SS suspended type centrifuges, complete.
2—AT&M 26" Type 316 SS suspended type centrifuges, complete.
1—Bird SS 40" suspended type centrifuge complete with perforate basket, motor and plow.
3—Western States SS 40" suspended type centrifuge complete with perforate baskets, motor and plows.
1—AT&M SS 48" suspended type centrifuge complete with imperforate basket, motor and plow.
4—Sharples Type 316 SS Nozljectors with 40 HP explosion proof motors.
1—Sharples Type 316 SS centrifuge, Model D-2.
1—Sharples Type 316 SS Super-D-Canter, Model PN-14.
3—Badger Type 316 SS heat exchangers, 450, 500 and 630 sq. ft.
2—Patterson-Kelley SS heat exchangers, 235 and 300 sq. ft.
1—Patterson-Kelley Carpenter 20 SS heat exchanger, 520 sq. ft.
1—Pfaudler Type 316 SS heat exchanger, 75 sq. ft.

2—Shriver rubber covered plate and frame filter presses, 36"x36", 27 chambers.

1—Industrial Process Engineers monel heat exchanger, 85 sq. ft.
1—Vulcan SS bubble cap column, 4' dia. x 25 plates.
17—Stokes type 304 SS jacketed rotary vacuum dryers, 3'x9' and 3'x15'.
1—Stokes steel jacketed rotary vacuum dryer, 3' x 15'.
3—Stokes Type 304 SS jacketed rotating vacuum dryers, 3'x10'.
2—Oliver SS rotary vacuum filters, 3'x2' and 3'x4'.
1—Sparkler SS filter, Model 8-3.
1—Sparkler Hastelloy "B" filter, Model 18D 12.
1—Enzinger SS pressure filter, 330 sq. ft.
1—Shriver cast iron plate and frame filter, press 42"x42", 37 chambers.
1—Sperry heresite lined filter press, 36"x36", 40 chambers.
1—Sperry rubber covered plate and frame filter press, 24"x24", 32 chambers, NEW.
1—Sturtevant #7 dustrite rotary batch blender, NEW.
1—Young SS double ribbon blender,, 4 cu. ft.
10—Robinson SS double ribbon blenders, 250 cu. ft.

2—Day Type 304 SS jacketed double ribbon blenders, 2000 lbs.

3—Robinson SS double ribbon blenders, 125 cu. ft.
1—J. B. Devine SS jacketed double cone vacuum blender, 30 cu. ft.
16—Stainless steel double cone jacketed vacuum blenders, 10 cu. ft.
2—Howe steel jacketed double ribbon blenders.
1—Alloy Fabricators 4000 gal. SS jacketed reactor.
1—Dover 4000 gal. SS jacketed reactor.
1—Stainless steel 2000 gal. jacketed reactor complete with impeller type agitator and drive.
1—Patterson-Kelley 1000 gal. SS jacketed reactor.
3—Whitlock 600 gal. SS jacketed reactors.
1—Pfaudler 300 gal. SS jacketed reactor complete with agitator and drive.
1—Pfaudler 100 gal. SS jacketed reactor.
2—Van Alst 300 gal. jacketed reactors.
1—Walter 300 gal. Hastelloy "B" jacketed kettle.
1—Struthers Wells 300 gal. Hastelloy "B" jacketed reactor.
72—Alloy Fabricators 400 gal. SS jacketed reactors complete with agitators and drives.
3—Stainless steel 12,500 gal. vertical storage tanks.

1—Alloy Fabricators 5000 gal. SS jacketed reactor complete with turbine type agitator and drive.

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2—OLIVER PRESS PRECOAT FILTERS 5'3" x 3'—Type 316 S.S.
1—Rubber Lined Tank—5000 gal.
2—KETTLES S.S., Jacketed, agitated, 250 gal.
Ball Mills—5x6, 6x8, 5x10.
2—AUTOCLAVES, Jacketed, 5' x 18', quick opening doors.
3—STORAGE TANKS—2 S.S. Clad, 11,000 gal. 1—S.S. 5700 gal.

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4—Lightnin side entering Mixers with 18" S.S. Blades—5 H.P. each.
1—J. H. Day 5-roll high speed Mill.
Conical Dry Mixer 192 cu. ft. vol.; 125 cu. ft. opr. vol.; with 15 H.P. Unibrake Motor.
1—30" Sperry Filter, closed del., 3-eye, 39-plates, 40-frames.
1—International Ball Mill, porcelain lined, 48" x 60", 15 H.P. Unibrake Motor.
1—Sparkler Filter 33-S-28, with Scavenger Plate, steam jacketed, like new.
2—Ball & Jewell #2 Cutters.
1—Patterson Steam Jkt. Ball Mill 42"x36".
2—Twin Screw Mixers, 120 gal. jkt.

Large stock of new and used H.P. Boilers, Tanks, Pumps, Heat Exchangers, Freon Compressors, Steam Jacketed Kettles, Pulverizers & Autoclaves.

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FOR IMPOSSIBLE BUDGETS

NEW STAINLESS EVAPORATOR

Long tube 751-1" OD 12 ga tubes 15' long. Evaporation rate 17,000# water per hour at 235° F. Entire unit constructed of type 309 and 304 stainless steel.

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"GEARED TO SERVE YOU"

100 cu. ft. jktd Ribbon Mixer—25 HP
Fitzpatrick Model DS6 Comminuter—10 HP
Clayton 15 HP package steam Generator
W & P 20 gallon heavy duty Mixer—MD
1000 gal. Stainless agtd. Tank w/Coils
Pneumatic Scale 8 spout S/S Vac. Filler
Day Sifter—20"x48" 1 deck—MD
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Trade Name Chemicals

—Continued from page 51

on molecular sieves as well as chlorine and chlorine compounds for use in dry bleaches.

Gaseous defolients, fumigants and ripening agents are also under study for their possible agricultural applications when loaded on solid molecular sieves. Primary targets for chemical loading in this area are ethylene and ammonia.

The "Linde Molecular Sieves" are synthetic crystals of alkali metal aluminosilicates that belong to a class of minerals known as zeolites. When heated, these minerals will give off the water they contain without breaking apart and will readsorb water on cooling.

The phenomenon can be made to work with chemicals other than water, and is explained by the fact that the dehydrated zeolite crystals contain a precise network of cavities all connected by openings of equal size. The network makes up about 50 percent of the total volume of the crystal.

This makes possible a quantitative separation of mixtures which contain molecules small enough to enter the pores of the molecular sieve and be adsorbed on the active inner surfaces, and those molecules which are too large to enter.

Linde's research efforts, stemming from 1949, have resulted in a number of types of synthetic zeolites, some of them analogues of natural crystals and others entirely new compositions of matter. To date, the company reports over 250 different substances have been loaded on molecular sieves.

The first products were made commercially available in 1954 and since then a variety of types and fabricated forms of sieves have been marketed, many of them tailor-made for specific uses.

Davison's "Microtrap" Sieves

Davison Chemical Division of W. R. Grace & Company came into the market in 1959 with "Microtrap" molecular sieves. The company provides molecular sieves for consumers who wish to load them with chemicals.

Davison recently reported an improved "Microtrap" product. Attrition resistance has been improved by surface treatment of the individual molecular sieve beads. This promotes increased resistance to abrasion in a packed bed.

"The "Microtrap" line is the newest addition to the line of adsorbents and catalysts manufactured by Davison for the petroleum, natural gas and chemical industries.

The products are available with pore openings of 4, 5 or 13 Angstroms for use in selective separation, purification and dehydration.

Oils, Fats and Waxes

—Continued from page 55

shipment was unchanged at $150 per ton, c.i.f. Pacific coast.

Flaxseed—Substantial flurry of activity developed in cash flaxseed ahead of 3c. decline in bids to $3.52, spot and to-arrive, basis Minneapolis. Nearly 300,000 bushels were contracted for arrival within 60 days while purchases in the spot market were only nominal. Weakness in cash bids reflected sharp declines in futures. Decline in cash flaxseed was comparatively small, reflecting inability to accumulate supplies at the lower levels.

Fats and Greases

Greases—Demand was quiet and the market was unsettled. Prices declined ¼c. per pound.. Choice white grease was held at 7⅝c. per pound, tankcars, delivered and yellow ranged from 5⅛c. to 5¼c., same basis, as to quality.

Lard—Market was irregular closing at unchanged quotations. Cash lard was held at 8.17c. per pound, drums, Chicago.

Tallow—Quiet demand weakened this market and most grades dropped ⅛c. per pound. Bleachable fancy was quoted at 5⅝c. per pound, tankcars, delivered; prime, 5½c.; guaranteed fancy, 5⅞c.; special, 5⅜c. and No. 1, 5c., same basis.

Exports of tallow and greases in August totaled 152 million pounds—up from 116 million pounds during August, 1960. Shipments in the first 8 months totaled 1,223 million pounds—an increase of 31 million pounds over the first 8 months of 1960. Exports in 1960 totaled 1,725 million pounds.

Japan continued to be the largest US market for tallow, taking 229 million pounds during the first 8 months of 1961. The USSR became the second largest buyer with purchases of 197 million pounds thus far in 1961. There were no sales to the Soviet Union in 1960. Both Italy and the Netherlands—formerly the second and third largest buyers—decreased purchases considerably during the first 8 months compared to the same period in 1960.

Soybean Crush: September

Soybeans received and crushed and production of soybean oil and meal during September-August 1961, as compiled by Bureau of Census.

Soybeans

	September	August
	Tons	
Receipts at mills....	570,100	314,300
Crushed or used....	633,600	901,000
Stocks at mills	282,700	401,200

Crude Oil

	September	August
	Pounds	
Produced	253,300,000	333,900,000
Stocks at mills	94,000,000	134,000,000

Cake and Meal

	September	August
	[1] Tons	
Produced	542,600	*707,300
Stocks at mills	77,500	179,300

[1] Includes millfeed (hull meal.)
* Revised.

Cake and Meal

Cottonseed Meal — This market was higher reflecting the advance in other meals. Trading was fairly active. Withdrawals against contracts were in good demand. Meal, 41 percent was higher at $58.50 to $59 per ton, sacked, Mississippi Valley; $64, Alabama, Georgia and $65, Carolinas, November-December shipment.

Linseed Meal—Strength again predominated in this market, nearby prices firm while deferred offerings advanced $1 a ton. One or two large processors were out of the market, and processor buying added to bullishness. Additional improvement was noted in formula feed business. Extracted meal, 34 percent protein, was held at $56.50 a ton, bulk, in carlots, f.o.b. Minneapolis, November delivery; $56, December. Old process meal was up $1.50 to $61, prompt; $61.50, November; $62, December; $62.50, January-March.

Soybean Meal—Substantial gains again were scored in this market, reflecting more pronounced holding tendency on the part of farmers and inability to accumulate soybeans at current levels. Demand was aggressive for nearby supplies. Unrestricted meal advanced $5.50 to $62 per ton, bulk, Decatur, prompt delivery.

Waxes, Vegetable

While buying interest was fairly active, actual trading for consumers account was still restricted to immediate requirements last week. Carnauba was quiet and unchanged. Replacements from Brazil also were reported inactive. No. 3 Ceara crude, ranged from 55c. to 57c. and Parnahyba, 58c. to 60c., on spot, according to quantity. Yellows remained steady. No. 1 Ceara was held at 86c. to 88c. per pound, spot as to quantity and Parnahyba, was 2c. higher.

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Advertisers' Index

Alan Wood Steel Company..... 44
Allied Chemical Corporation National Aniline Division 15
Allied Chemical Corporation—Plastics Division 43
Allied Chemical Corporation, Solvay Process Division 30, 34
American Agricultural Chemical Co., The. 1
American Lignite Products Co..... 41
American Mineral Spirits Company..... 62
American Potash & Chemical Corporation.. 32
Amoco Chemical & Corporation..... 23
Ashcraft-Wilkinson Co..... 41

Baker, J. T., Chemical Co..... 1
Becco Chemical Division, Food Machinery & Chemical Corp..... 31, 32
Berkshire Chemicals, Inc..... 53
Bios Laboratories, Inc 48
Bower, Henry, Chemical Mfg. Co..... 31
Brill Equipment Company..... 56
Brode Corporation, The 54

California Chemical Company, Oronite Division 11
Callery Chemical Company..... 32
Celanese Corporation of America, Chemical Division 62
Chemical & Process Machinery Corp..... 59
Chemical Service Corp 60
Chemical Solvents, Inc..... 62
Chemsol, Inc..... 60
Columbia Southern Chemicals (Refer to Pittsburgh Plate Glass Company, Chemical Division).
Commercial Solvents Corporation.....6, 20, 21
Concord Chemical Company..... 62
Coupe, Robert A..... 33
Cowles Chemical Company..... 62

Dicalite Department, Great Lakes Carbon Corporation 52
Distillation Products Industries, Div. of Eastman Kodak Company 39, 46
Dixon Chemical & Research, Inc..... 62
Dunkel, Paul A., & Company, Inc..... 48

DuPont de Nemours, E. I., & Co. (Inc.)..31, 39
Duval Sulphur & Potash Co..... 41

Emery Industries, Inc..... 55
Equipment Clearing House, Inc..... 59
Erie Casein Dryers 53

First Machinery Corp..... 57
Florasynth Laboratories, Inc..... 49
Foremost Dairies, Inc., Industrial Division.. 18
Fritsche Brothers, Inc..... 49

Gelb, R., & Sons, Inc..... 59
General Equipment & Trading Co..... 56
Gillespie-Rogers-Pyatt Co., Inc..... 54
Greeff, R. W., & Co.....1, 47
Gross, A., & Company..... 55
Gulf Oil Corporation..... 39

Halby Products Company..... 32
Harchem Division, Wallace & Tiernan, Inc. 39
Heat & Power Co., Inc..... 57
Heico, Inc..... 32
Heyden Chemical Division, Heyden Newport Chemical Corporation 13
Hoffmann-La Roche, Inc 29
Hooker Chemical Corporation..... 31
Hutchinson, D. W., & Co., Inc..... 49

Industrial Raw Materials Corp..... 50

Jasper Machinery Company, Inc..... 59
Jefferson Chemical Company, Inc..... 27

Kay-Fries Chemicals, Inc..... 40
Keunen, Koster, Inc..... 55

Lawler Company 57
Lebanon Chemical Co 41
Lever Brothers Company 34
Loeb, H., & Son 59
Loeb Equipment Supply Co..... 56
Lucidol Division, Wallace & Thiernan, Incorporated 40

Machinecraft Corp.....59, 60
Machinery & Equipment Company....56, 57, 59
Machinery & Equipment Co., The..... 59
Magnus, Mabee & Reynard, Inc..... 49
Merck & Co., Inc 48
Michigan Chemical Corporation..... 32
Mississippi Lime Company..... 33
Mutual Citrus Products Company..... 50

National Casein 53
New Jersey Zinc Company, The..... 50

Olin Mathieson Chemical Corporation (Mathieson Chemical).....25, 26
Osborn, C. J., Co..... 53

Pan American Sulphur Company..... 31
Pearsall Chemical Corp..... 33
Pennsalt Chemicals Corporation, Industrial Division 1
Perry Equipment Corp..... 58
Petro-Tex Chemical Corporation..... 8
Pfaltz & Bauer, Inc..... 48
Philadelphia Quartz Company..... 33
Philipp Brothers Chemicals, Inc..... 53
Pittsburgh Plate Glass Company, Chemical Division 30
Plastics Division, Allied Chemical Corporation 43
Potash Company of America..... 41
Prior Chemical Corporation..... 1
Process Plants Service, Inc..... 57
Procter & Gamble Co..... 34
Publicker Industries, Inc..... 39

Rambach Chemical Company..... 60
Raney Catalyst Co..... 34
Read, Chas. L., & Co., Inc..... 54
Richter, Gedeon Pharmaceutical Products, Inc. 48
Robeco Chemicals, Inc..... 62
Rosenthal's, Joseph, Sons, Inc..... 59
Ross, F. H., & Co..... 30
Roubechez, Inc..... 50

Snow, N. J., Equipment Co..... 56
Stein Equipment Co..... 56
Sunkist Growers, Inc..... 19

Tennessee Corporation.....35, 36, 37, 38
Titanium Alloy Mfg. Division, National Lead Company..... 35
Turner, Joseph, & Co..... 48

Ungerer & Co 50
Union Carbide Chemicals Company, Division of Union Carbide Corporation..... 2
Union Standard Equipment Co..... 56
United Box & Lumber Co..... 40
U. S. Borax & Chemical Corporation..... 1
U. S. Steel Corp..... 44
United Ultramarine & Chemical Company, Inc. 53

Verona Aromatics, A Division of Verona-Pharma Chemical Corp..... 50

Weisz, David, Co..... 60
Western Mica Corporation..... 54
Will & Baumer Candle Co., Inc..... 55
Winthrop Laboratories..... 47
Wolf, Bill, Inc..... 57
Wood Ridge Chemical Corporation..... 32
Wyandotte Chemicals Corporation..... 31

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Carbide Must Get Rid of Visking

—Continued from page 5

products department is currently servicing the construction industry with plastics film formerly handled by Visking.

A key issue in the case revolves around the question whether polyethylene film is a distinct and separate market apart from other flexible packaging materials. The commission ruled that it is, and it was on this point Commissioner William C. Kern dissented from the majority and recommended that the examiner be instructed to explore the impact of the merger on the entire flexible packaging market and not just on other producers of polyethylene film.

Dixon Writes Majority Opinion

Chairman Paul Rand Dixon wrote the majority opinion and sided with the trial examiner that polyethylene film itself for flexible packaging purposes has "sufficient peculiar characteristics and uses" to constitute it as a separate and distinct product market.

Mr. Dixon drew upon the Supreme Court's ruling in the duPont-General Motors antitrust case to support this view. He said that the phrase "sufficient peculiar characteristics and uses" was lifted verbatim from the court's opinion in that case.

"Our review of the record," he said, "has persuaded us that the hearing examiner's decision is correct and in harmony with both the cellophane and the duPont-GM decision.

"In making this determination we have weighed carefully all of the usual criteria including one which we feel important but which has received little attention.

"This factor is the preference of users or buyers for a particular product or material despite the existence of adequate substitutes."

He said that the existence of adequate substitutes does not "erase the fact that consumers who desire a particular product constitute a separate market for that product. And, where as here that market is substantial it constitutes a line of commerce as those words are used in section seven of the Clayton act."

Mergers Beget More Mergers

Chairman Dixon continued: "Mergers of this type—that is, the acquisition of customers—beget additional mergers. A resin manufacturer faced with a market over which its competitors are acquiring ever-increasing control is forced to protect its position by acquiring for itself control of a segment of the market and the quickest route to such control is through acquisition.

"At least four of Carbide's seven competitors have acquired film manufacturing companies. With one exception these acquisitions have taken place after Carbide's acquisition of Visking.

"Of course, the control of a sizable segment of a market by firms already established in the industry serves further to discourage the entry of new manufacturers.

"In 1958 and 1959 approximately 40 percent of all shipments of film-grade resin were made by resin manufacturers to their own film-producing factories.

"Thus the market for film-grade resin, constituting 43 percent of the total resin market, is substantially under the control of resin producers.

"The re-emergence of Visking as an independent purchaser should help to reverse this trend toward an ever-increasing controlled market."

Monsanto Says

—Continued from page 5

Mueller a member of the board and of the executive committee. John R. Eck was elected vice-president and general manager of the plastics division, succeeding Mr. Mueller.

• Named vice-president H. Harold Bible general manager of the hydrocarbons division and F. E. Reese assistant general manager.

Monsanto's new research center, located in Creve Coeur, Mo., in suburban St. Louis, supplies the company with facilities containing 463,000 square feet of enclosed space. Features include:

• Cost—more than $10 million.

• Personnel—ultimately more than 800.

• Administration—under Dr. Wendell P. Metzner.

• Facilities—"Q" building has seventy-five modular laboratory units, eight larger laboratories and the facilities; "T" building has similar arrangements. "R" and "S" buildings have fifteen conference rooms, a library, two large analytical laboratories and other rooms. "W" building has twenty laboratories, thirty-one special purpose compartments and two offices.

• Modular laboratory units—flexibility has been stressed. All module partitions are movable; utilities are piped in overhead and dropped to bench elevation.

• Analytical laboratories — one unit unit alone has $350,000 in equipment.

• Construction — major buildings are four stories; site preparation entailed removal of 350,000 cubic yards of earth; vibration is kept at a minimum in the laboratories.

• Use of plastics—many plastics are incorporated into construction.

Grace Executive Supports

—Continued from page 7

terprise cannot be restored "until Cuba is returned to the democratic fold."

The Grace executive compares the administration's new Alliance for Progress program with the Marshall Plan in that it has had a comparable effect in arousing hope and anxiety.

"This program," he says, "has given the people of Latin America a new hope that their aspirations for a better standard of living can be realized in the foreseeable future.

"It has also given the Latin American governments renewed assurances of US assistance to them in their efforts to develop the economies of their countries as rapidly as possible."

Grace has widespread business interests in South America, to which substantial chemical additions have been made in the past few years.

Enzymes: A New Market? They Can Power Batteries

A new market for enzymes? Could be. The Navy is reported to be planning ocean tests soon of a new kind of battery powered by selected enzymes or bacteria.

Models of the "bio battery" have been operating more than a year in the laboratories of Magna Products, Inc., a subsidiary of Thompson-Ramo-Wooldridge, Inc.

The advantage of these power units is that, through a catalytic help of enzymes or bacteria, electricity can be produced from a wide variety of fuels and oxidants that are now unusable.

Among the possible fuels: sugar, potatoes and other vegetation and raw sewage. The oceans could also provide limitless amounts of fuel or oxidants.

According to Magna, its batteries have been generating enough power to operate radio beacons, signal lights and other apparatus at sea.

Weed Controllers to Meet

The sixteenth annual meeting of the Northeastern Weed Control Conference will be held January 3-5, 1962, at the New Yorker hotel, New York.

US Peroxygen Expanding In Tertiary Butyl Peroxide

US Peroxygen Corporation, a leading maker of organic peroxides, has completed an expansion at Richmond, Calif., doubling its tertiary butyl peroxide capacity.

The material is said to be encountering increased demand for use as a polymerization catalyst in production of high molecular weight polymers, silicone rubber, polystyrene and polyolefins. Initial production was started by US Peroxygen late in 1960.

With the capacity increase, US Peroxygen says it is in a position to consider bids from customers for annual contract requirements. The material is available in one-gallon glass jugs, five-gallon steel pails, sixteen-gallon drums and fifty-five-gallon drums.

Huber Sets Expansion At Its Maryland Plant

J. M. Huber Corporation is increasing its plant capacity at Havre de Grace, Md., to provide for increased output of sodium silicoaluminate and addition of an improved hydrated silicic acid pigment. On stream date is mid-1962.

Trade-named "Zeolex," Huber's sodium silicoaluminate is said to be a unique form of the material. The hydrated silicic acid pigment is reportedly an outgrowth of original research work. Suggested applications are in rubber, paper, pesticides and paint.

Coal Chemicals

—Continued from page 43

"stringent" by trade sources there with the price sometimes reaching approximately 57c. per pound.

Dependent in large part upon imports to supply needs, Japan's chemical manufacturers have been hard hit by the pyridine shortages in the US, UK and USSR, normally the major exporters to Japan.

Intermediates

Isophthalic Acid—Following closely on the heels of the phthtalic anhydride reduction, the price of isophthalic acid also was cut 2½c. a pound.

New schedule reads: drums, carlots, works, freight equalized, 14½c. a pound, and drums, less carlot shipment, same basis, 15½c. a pound.

Phthalic Anhydride—A major Japanese phthalic producer is expanding capacity from 500 metric tons per month to 1,000 tons.

In addition, a switch is planned in raw material from naphthalene to o-xylene.

Contracts have already been signed for import of 5,000 metric tons of US o-xylene and additional quantities will be supplied by a number of US producers.

Upon completion of the phthalic expansion, the Japanese company expects to enter the export market.

Piperazine — A mutlimillion-pound-a-year piperazine plant is due to rise at Conroe, Texas. To be on stream in the second quarter next year, the new plant will be the largest single plant in the country devoted to piperazine production.

Although piperazine's main end use right now is as an anthelmintic, for deworming swine and poultry, the producer indicates capacity of the new plant will be large enough to accommodate expected industrial end uses as well.

At this time the producer plans to enter the market with the new plant at the current prive level.

Coal Chemical Briefs

NEW DYE AID OFFERED: Allied Chemical Corporation's National Aniline Division is offering a new dyeing aid, "Lanamol CW," for use on wool and nylon fabrics and yarns. Possessing superb wetting qualities and excellent dye penetration, according to Allied, "Lanamol CW" provides full and level dyeing, complete dye exhaustion and a freezing point of —15° C., which affords protection during winter transit and storage.

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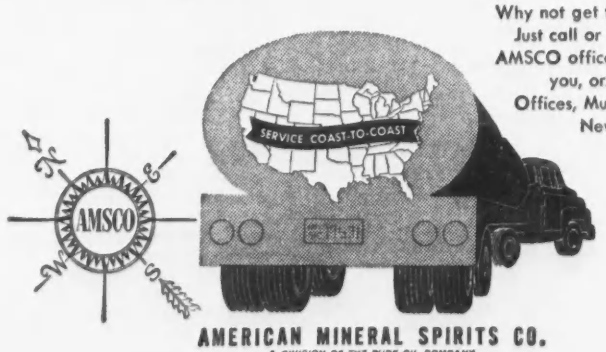

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